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The Prevention of General Paresis and Other Late Manifestations of Neurosyphilis

● Charles Walter Clarke, M.A., M.B., L.R.C.P., F.A.C.P.: Director Bureau of Social Hygiene, New York City Department of Health, and in Charge of Medical and Public Health Activities of the American Social Hygiene Association

OF the five principal conditions leading to admission to state mental hospitals, viz., dementia praecox, cerebral arteriosclerosis, manic depressive insanity, senile dementia and general paresis, only the last appears to be well understood as to its etiology and its vulnerability to therapeutic attack. It is among the few for which we have at present a definite method of prophylaxis.

Syphilologists now quite generally agree that adequate treatment of early syphilis results in a clinical cure; that adequate treatment of latent syphilis usually prevents the fatal or crippling effects of the disease including general paresis, and that in its earliest stages paresis itself is amenable to modern methods of treatment. But fully developed general paresis does not present the same prospect of a satisfactory outcome as the result of our best efforts, and yet these cases constitute a large proportion of the more than 6,600 victims of paresis now in state and other mental institutions. The gravity of the problem of general paresis, to say nothing of cerebral syphilis, may be appreciated from a consideration of the following facts:

1. In 1932 general paresis was the condition leading to admission to:
   state mental hospitals in 11.1 per cent of cases,
   psychopathic hospitals in 12.0 per cent of cases,
   city and county hospitals in 18.5 per cent of cases,
   veterans' mental hospitals in 20.4 per cent of cases.
2. In 1932 of all the deaths among patients in state mental hospitals, 12.9 per cent more were those of paretic patients, and Fuller and Johnston state that of patients having general paresis 55.3 per cent die within the first year and 19.9 per cent die before the end of the second year after admission.
3. While in New York State there has been a steady decline in the percentage of first admissions due to general paralysis from 13.4 per cent in 1918, to 9.3 per cent in 1933, yet the New York State Health Commission reported in 1932 that there are about 2,000 paretics in the state and that they cost the taxpayers of the state about $800,000 per year.

Prior to the discovery by Wagner von Jauregg of the therapeutic effects of malarial fever upon general paralysis of the insane, this manifestation of syphilis was virtually always fatal. That the mortality rate from general paresis has decreased in recent years is attributable in a considerable degree to the constantly increasing use of malaria and other pyrexia treatment. Not only have deaths from paresis decreased but, better still, many cases have enjoyed a degree of remission which permitted them to return to their homes and former occupations. But not all cases are suitable for pyrexia treatment nor are all the patients receiving such therapy equally benefited. In general it may be said that the earlier in the course of dementia paralytica the pyrexia treatment is instituted the more hopeful the immediate and ultimate prognosis.

Before the mental and neurological symptoms of general paresis develop there is characteristically a period more or less prolonged of asymptomatic neurosyphilis when the only signals of the impending danger of paresis are discoverable by means of laboratory investigations of the spinal fluid. These are usually the cases in which sometimes in spite of the long continued administration of arsphenamine and heavy metals, the spinal fluid, and the blood remain Wassermann positive, with the spinal fluid showing also an abnormally high cell count, increased globulin and a positive colloidal gold or gum mastic test. It is well established that without appropriate treatment such cases of asymptomatic neurosyphilis are very prone to become symptomatic, and to develop the well recognized syndrome of general paralysis of the insane, or tabes dorsalis, or a combination of these two symptom complexes, with a gloomy prognosis for complete recovery in spite of the persistent administration of bismuth and mercury.

It is evident that a method which would prevent the development of general paresis with the personal tragedies and community expense it entails would be of great social value, reducing the taxpayers' burden of institutional care of the insane, saving men and women from complete physical and mental deterioration, and preserving families from disruption. Fortunately such a prophylactic method is available. There is much experimental evidence to show that many cases of asymptomatic neurosyphilis can be prevented from developing general paralysis of the insane or tabes dorsalis by administering pyrexia therapy by methods similar to those used in the treatment of fully developed paresis.

In the province of Alberta, Canada, an effort has been made to apply pyrexia as a prophylactic treatment for the prevention of general paresis in all cases of asymptomatic neurosyphilis which prove resistant to ordinary therapeutic attack. Beginning in 1931 in the Edmonton Social Hygiene Clinic every case of syphilis showing a "fully positive" spinal fluid examination after at least nine months of treatment with arsphenamine and heavy metals was referred to the Provincial Mental Hospital for malaria treatment. The spinal fluid of every case is

taken between the ninth and the twelfth month of treatment. By fully positive is meant, (1) the Wassermann test strongly positive; (2) the colloidal gold test high at the left or in the center; (3) globulin present as demonstrated by Pandy's test; and (4) the cell count high. Patients with partially positive spinal fluids are continued on clinic treatment for a further period of six months when the fluid is tested again. All factors are taken into consideration before a patient is referred for pyrexia treatment. The latest available report indicates that 58 "fully positive" cases have been referred from the Edmonton clinic to the Provincial Mental Hospital for pyrexia treatment.

The Provincial Mental Hospital has during a three year period administered prophylactic pyrexia therapy to 114 cases of asymptomatic neurosyphilis admitted from all sources in the Province.

On admission a full examination of the spinal fluid is made unless this has been done very recently. The patient is then inoculated from a patient who is having chills, the strain being kept alive by transfer from patient to patient. Eight to twelve crises are allowed to occur after which the course of the malaria is interrupted by the administration of quinine. At the conclusion of the series of crises when the patient is again able to be up and about treatment with arsenicals and bismuth is renewed, usually at a clinic. The blood and spinal fluid are checked before discharge from hospital and again after completion of a course of treatment. The total duration of hospitalization is from four to six weeks.

There have been no untoward results in the immediate or, so far as known, from the later treatment of these cases. Of the 58 cases referred from the Edmonton clinic 31 have had spinal tests at least one year after completion of the malaria treatment and of these 14 or 66 2/3 per cent have become absolutely normal to all four tests. While the ultimate results in this group cannot be stated for obvious reasons, considerable experience in other centers in Europe and America leads one to expect that these patients will not develop dementia paralytica or tabes dorsalis.

Since good results in a high percentage of cases can be obtained by the prophylactic methods mentioned above is it not practicable to apply these methods generally to all cases of asymptomatic neurosyphilis which are resistant to the ordinary method of chemotherapy?

A group of distinguished psychiatrists and syphilologists was asked to comment on the methods employed in Alberta. This group were unanimous in answering in the affirmative the question stated above, as is indicated by excerpts from a few of their letters:

1. *Arthur H. Ruggles, M.D., Superintendent, Butler Hospital, Providence, R. I.*
"If invasion of the central nervous system is indicated early, I think all would agree that that is the time for active therapy and also that the malarial therapy would be the best form of treatment. A great step in preventive psychiatry would be taken if such investigation and, when indicated, such treatment, were instituted."
2. *William A. White, M.D., Superintendent, Saint Elizabeth's Hospital, Washington, D. C.*
Dr. White called attention to a number of precautions and limitations which should be considered in connection with the prevention of general paralysis of the insane by means of malaria therapy and concluded: "Please pardon me for all of these monkey wrenches which I have thrown into your idea, but I think it is a plan that ought to be very carefully canvassed before being put into operation. If, however, it can be put into operation it is certainly the way to approach the prevention of neurosyphilitic sequelae."
3. *Harry C. Solomon, M.D., 270 Commonwealth Avenue, Boston, Mass.*
"If a year or so of treatment with such a drug (tryparsamide) does not produce evidence that the fluid is becoming negative, I then personally am in favor of fever treatment; whether malaria or mechanical heat may also be open to question."
4. *Walter L. Bruetsch, M.D., Central State Hospital, Indianapolis, Ind.*
"The experiment is highly worthwhile and should be encouraged."
5. *Col. L. W. Harrison, British Ministry of Health, London, England.*
"It seems to me only common sense to try such methods, and the cases I would choose for malarial treatment would be those in which tryparsamide and bismuth therapy had failed to reverse the positive reactions in the C. S. F."
6. *Paul A. O'Leary, M.D., Section of Dermatology and Syphilology, Mayo Clinic, Rochester, Minn.*
"To me, the use of malaria therapy in the prevention of paresis is the paramount value of the remedy in the neurosyphilitic."
7. *Albert Keidel, M.D., 804 Medical Arts Building, Baltimore, Md.*
"It would undoubtedly be of inestimable value in the prevention of dementia paralytica if the procedure under discussion could be generally applied."

After careful study of the comments of psychiatrists and syphilologists, as well as other available material on the prophylaxis of dementia paralytica, and considering practical conditions and problems, a letter, containing the following paragraphs, was sent to certain syphilologists over the signature of the author.

"Two features of the Alberta undertaking struck me as being experimental:
"First, on the administrative side. The cooperation of a tax supported syphilis clinic with a tax supported mental hospital in the development of a procedure for the prophylaxis of paresis such as Dr. Orr has worked out is, I believe, quite unusual. You know, of course, that in the United States, comparatively few public syphilis clinics routinely take c.s. fluid specimens and still fewer carry out Pandy's test, colloidal gold test, and cell count in addition to the Wassermann test. In fact, a good many even of the University Clinics do c.s. fluid examinations only 'on indication.'
"Secondly, as regards the indications for pyrexia therapy of asymptomatic neurosyphilis, I believe it is not general practice to go directly to pyrexia treatment in cases of asymptomatic neurosyphilis showing a 'paretic type' of c.s. fluid, as I understand Dr. Orr is doing. It is my impression, from my studies of clinics in this country and abroad, that pyrexia therapy is usually reserved for those cases which prove resistant to drugs, such as tryparsamide and bismuth, and to special methods such as intraspinal treatment.
"Of course, there is no telling when better methods may be found. In the meantime I am inclined to think that we are on firm conservative ground in encouraging clinics and practictioners treating syphilis:

1. To do routine complete c.s. fluid examinations not later than one year after initiating treatment, as well as on indication.
2. To administer special preparations (such as tryparsamide and bismuth), and to use the special procedures (such as intraspinal therapy) in all cases of asymptomatic neurosyphilis, unless definitely contra-indicated.

(Concluded on page 143)

A Resume of the Use of Artificial Pneumothorax In Lobar Pneumonia

• Willard J. Davies, M.D., Rockville Centre, N. Y.

THE use of artificial pneumothorax in the treatment of lobar pneumonia has gained added impetus since the work of Leopold and Lieberman.[1] Its use was first established by Rood[2] in 1918 who noted a selective collapse on patients with influenza pneumonia. This was brought about by doing lung punctures on patients with influenza pneumonia in an effort to determine the infecting organism. Noting the improvement, he injected small amounts of air in three patients, with one death (all apparently moribund). At autopsy he noted that the involved lobe was compressed and contained less than the usual amount of exudate. Friedmann[3] in 1921, Schottky[4] in 1923, Wynn[5] in 1926, Ibraham and Duken,[6] Duken,[7] Jahr and Neumann[8] and Klotz[9] reported cases from time to time, all recommending the treatment to further use. In 1932, Coghlan,[10] who reported six cases with one death which he attributed to an error of judgment, stimulated most of the work since that date. He did not make any reference to any previous work.

Artificial pneumothorax in lobar pneumonia should be used with an intelligent action guiding the operator to enhance an armentarium already insufficient, to cure as many patients as one can and not to subject them to needless disregard of other means which have proven useful in the treatment of this disease.

Atelectasis is a definite indication for treatment. Coryllos and Birnbaum[11] and Holmes and Randolph[12] state that there is only one mechanism in the production of atelectasis, which is the plugging of a bronchus by a mucous plug and the absorption of the air in the terminal bronchi. Brown[13] states that the "differential diagnosis between postoperative atelectasis, postoperative pneumonia and lobar pneumonia usually rests largely on the factor of toxicity, when the other symptoms and signs run closely parallel." The above factors are due to negative intrathoracic pressure and prompt restoration of the normal structures can be obtained with the instillation of air in such amount as to correct the pressure.

A painful pleurisy is also an indication for the treatment. With the relief of pain, cyanosis decreases, cough is reduced and sleep is induced. With the loss of pain, the depth of respiration is increased, probably because the fear of pain is lost. In fact, with the return of pain many of the patients have asked for another treatment. This has been noted by Coghlan,[10] Holmes and Randolph,[12] Behrend and Cowper,[14] Behrend, Tuck and Robertson,[15] Blake[16] and others.

The contraindications listed at present seem to be those primarily listed for tuberculosis. Many of these have been improved with time. Extension into the contralateral lung is a primary point against treatment, although we know that in tuberculosis this is no longer held to be a fact.

The amount of air given with the initial treatment and the frequency of the refills vary with the different authors and the amounts used are increasing as experience increases. Coghlan,[10] Rood[2] and Li[17] used small amounts of air varying from 100 to 500 c. cm. at varying times, which was based mainly on the temperature and the appearance of toxicity. In the later papers, Burbank and Rothstein,[18] Stoll, Hopkins and Martin,[19] vary from 750 to 2100 c. cm. All authors except Blake[16] and Bullowa[20] desire negative pressures. None, with the exceptions of Blake[16] and Stoll,[19] have stated whether they are using corrected pressure or what type manometer scale is used. Blake seeks to get a positive pressure as soon as possible without embarrassment and has given as high as 2400 c. cm. at a single treatment. The amount of air which will be necessary to raise the intrathoracic pressure to a positive one will vary from case to case and the intrathoracic pressure is maintained at a positive pressure until recovery is assured.

The technique of injection is the same as that used in artificial pneumothorax in the treatment of pulmonary tuberculosis. It may seem desirable to keep the patient as quiet as possible in the administration of the treatment so that bronchial spill to the good tissue will be averted. This can be done with the patient lying on his back and will not necessitate the usual pneumothorax position. All authors agree that the procedure is one which should be given by an operator skilled in its use and technique.

Theories as to the *modus operandi* of artificial pneumothorax are not in agreement. Coghlan[10] attributed the fall in temperature, artificial crisis and the general feeling of well-being seen in the treated cases to the same reasons for its working in pulmonary tuberculosis. There has been some question as to the ability of artificial pneumothorax to collapse, even in partial degree, a pneumonic lung in the state of hepatization. Behrend, Tuck and Robertson[15] state that "clinically, roentgenologically and post-mortem . . . this can occur," and this leads them to question whether the term "hepatization" as seen at the autopsy table is a true picture of what occurs during life. They also believe that on the theory that a part of the body which is in constant motion improves with rest, artificial pneumothorax accomplishes this for the diseased lung. The phthisiologist is conversant with the attempt of the body to limit disease in the chest by retraction of the ribs, shift of the mediastinum and rising of the diaphragm in order to enforce rest. If this is a natural phenomenon which does not seem able to carry itself to the necessary degree, why not create it artificially? When the pain due

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to the pleural motion is removed, the splinting action attempted by the patient disappears. The breathing is naturally deeper, expansion is greater in the unaffected lobes, anoxemia is decreased and cyanosis is diminished. Behrend and Cowper,[15] quoting Corper, Corper and Rench, Simon and Rench from their conclusive work on artificial pneumothorax in tuberculosis, believe that within a few hours after induction of the pneumothorax the blood volume flowing through the collapsed lung decreases 42 to 48 per cent. and that in three days this further drops from 82 to 91 per cent. With this in mind, it would seem theoretically that the decrease in toxemia from the affected lobe gives the desired results. Behrend and Cowper show that the daily Schilling counts before and after crisis induced by the pneumothorax show the same hematological facts as those found after crisis in untreated cases. Antibodies are not found in the blood despite the artificial crisis, which seems to vary just as it does in pneumonia treated by any other method.

In established bacteriemia, the bacteriemia is not affected in any way by the treatment, although in Behrend, Tuck and Robertson's[15] series the number of cases of bacteriemia occurring in the treated cases was less than half that of the untreated control group. Leopold and Lieberman found that several dogs in the treated series lived with higher bacterial counts than did any of the untreated series.

The time of the treatment is agreed to by all authors, i.e., that the sooner the treatment is given the greater the advantage; for that matter this holds true in all disease. But disagreement manifests itself as to whether the treatment should be given later than the third or fourth day. Blake[16] does not feel that there is much advantage later than the third day. Behrend, Tuck and Robertson[15] believe that to limit the treatment from the third to the fifth day of the disease limits its application needlessly and denies the patient a very good therapeutic aid.

Theoretically, the complications would be, in the main, the same as artificial pneumothorax used in any other disease. The more important ones are: cardiac collapse due to mediastinal displacement, spread of the infection to the uninvolved lung, pleural shock, pulmonary embolism and tearing of the lung. In the series of Behrend, Tuck and Robertson there was little difference in the complications in the treated group and in the control group. Bullowa[20] reports subcutaneous emphysema as a complication. This is a possibility, although no other author reports this finding. He also reports mediastinal shifting and orthopnea. Many of these factors suggest too great a pressure.

Blake[16] analyzed the statistics in the first 124 cases (omitting those reported in both of his articles); 284 cases have been added since this time. Behrend, Tuck and Robertson[15] treated 40 cases with a mortality of 35 per cent. In their control group were 100 cases with a mortality of 51 per cent. They did not limit their treatment to any special day of the disease. Burbank and Rothstein[18] treated 20 cases with a mortality of 10 per cent. (2 cases). One of these was a chronic alcoholic with delirium tremens and a luetic aortitis, and the other had a contralateral spread. Shipman and Cox[21] report 22 cases with 4 deaths, 18 per cent. Two patients were dying at the time treatment was begun; three had positive blood cultures. J. C. Riggins[22] reports six successful cases. Isaacs *et al.* reported seven cases with three recoveries. Kline and Tuck[23] report 43 cases with 14 (32.6 per cent.) deaths. Four were moribund at the time of treatment, three developed a toxic psychosis, one case had an acute (hemolytic) streptococcic endocarditis. In the pneumonia wards at the same time were 243 cases with a mortality of 41.5 per cent. Bullowa[20] reports 37 cases with 5 deaths (13.5 per cent.). One was type two with positive blood culture, another type three with a positive culture, another type four with a positive blood culture of type four and a hemolytic streptococcus, one type fifteen without a positive culture, and one a hemolytic streptococcus pneumonia with a positive blood culture, lung abscess and hemolytic streptococcus meningitis. Stoll, Hopkins and Martin[19] report 25 cases with seven deaths (28%). Five of these cases had positive blood cultures; three were type one and serum was given; the average age of these cases was 62 years. They were cases with a variety of severe complications and extensive adhesions prevented satisfactory compression in practically all cases. Burbank and Rothstein[18] report 20 cases with 2 deaths (10%), which is much less than the usual mortality in Kings County Hospital. Blake[16] reports 42 cases with 9 deaths (21.4%). All deaths were in the cases treated later than 72 hours after onset. Six had type one pneumonia, three with positive blood cultures, and were treated with serum. Three of the remaining ones had positive blood cultures.

Conclusion

Artificial pneumothorax when administered by a competent operator reduces the mortality of pneumococcus pneumonia.

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On the Dietetic Treatment of Conditions Signalized by Arterial Hypertension

• Edward E. Cornwall, M.D., F.A.C.P., Brooklyn, New York

ARTERIAL hypertension is essentially a compensatory reaction of the organism in the interest of an efficient circulation. Indications for its dietetic treatment are presented by pathological and physiological conditions which more immediately cause or invite it, and are consequent upon it. These causative conditions are regularly disease and dysfunction of the arteries and kidneys; and the consequent conditions are regularly arterial and cardiac disease and various functional disorders.

How disease and dysfunction of the arteries and kidneys can bring about arterial hypertension has not been definitely established. The writer has discussed this subject speculatively elsewhere[1] and he will not go into it here. He will here discuss its dietetic treatment in the light of generally accepted knowledge and his own experience.

The following seem to be clear indications for dietetic treatment in this condition:

To favor the actual or potential renal insufficiency.

To favor the abnormal susceptibility of the cardiovascular system, and especially of its vascular part, to disturbing factors.

To favor actual or potential subnutrition of the tissues due to the circulatory depression—for the circulation in not as free and flexible in conditions of arterial hypertension as in the normal conditions.

To favor the actual or potential heart failure and its consequences.

To favor the actual or potential special sensitizations which are invited by the conditions of metabolic strain inherent in abnormal circulatory conditions.

How can these indications be met?

There are general principles which can guide in this treatment; and these general principles can be modified in their application by the special indications presented by the individual case. The dietetic range under these general principles and special modifications is extensive. In some cases the diet needs to be changed very little from that of health, while in others, extreme dietetic modifications are called for.

The general therapeutic principle of the Easy Diet,[2] which is of universal application, governs here, and particularly in the matter of the quantity and quality of the food stuffs. While in the mild cases, moderation all along the line may be all that is necessary, in a large proportion of the cases, and especially in those which exhibit notable renal insufficiency, the lactovegetarian formula is demanded. But here often latitude is allowable. It may be sufficient in many cases to reduce the animal flesh in the diet to a comparatively small amount—perhaps by allowing it only twice or thrice a week—or eggs may be allowed in moderation. The lactovegetarian formula, however, remains the formula of greatest value in this condition. As to the quantity—that also is of primary importance. Complicating conditions present their definite indications. Complicating obesity calls for weight reduction, with, however, due regard for the contraindications to reduction which other complicating conditions may present. If there is notable renal insufficiency, the protein ration should be reduced to approximately the minimum health ration. The ration of the food salt, sodium chloride, should in all cases be reduced to near the minimum health ration, and if there is edema, to a little less than that ration—the absolutely salt free diet should never be attempted. The necessity for conservative regulation of the salt intake calls for special emphasis because the habit of eating excessive quantities of sodium chloride is widespread among civilized people. The water ration should be sufficient, but not excessive; in the cases with notable heart failure it should generally be diminished.

The indications for the dietetic treatment of conditions of arterial hypertension are very much those of the associated pathological conditions and functional derangements. The writer will not here discuss them in further detail. But he would like to state as his opinion, based on experience, that the treatment of this condition by dietetic regulations in accordance with the principle of the Easy Diet, and with proper restriction of muscular and mental activity, is the essential treatment; and that the treatment with drugs, except in emergencies, has no place; and that the treatment with mechanical procedures has a small sphere of usefulness. But in this connection he would bear testimony to the fact that in the milder cases a certain amount of physical exercise and mental relaxation and distraction, especially in the form of pleasing games or occupations, is often beneficial. In respect to the dietetic treatment, he would also like to say that it has been among the major gratifications of his professional experience to note how in many cases improvement in the hypertension and the conditions on which it depended followed treatment along the line of the Easy Diet.

1218 Pacific Street.

[1] The vascular peristalsis theory of circulatory dynamics and arterial hypertension, *Medical Times and Long Island Medical Journal*, August, 1935.

[2] The Therapeutic Principle of the Easy Diet. Medical Record, March 21, 1934.

Role of Anomalies of Kidney and Ureter in Causation of Surgical Conditions

ROBERT GUTIERREZ, New York (*Journal A. M. A.*, Jan. 18, 1936), believes that it can be said that fully 40 per cent of all pathologic conditions of the kidneys and ureters are due to congenital anomalies, and that these malformations constitute the most extensive chapter in modern urology.

Practical Clinical Points in Urological Diagnosis

• Joseph H. Friedman, M.D., Attending Urologist, Manhattan State Hospital; Adjunct Urologist, Hospital for Joint Diseases, New York, N. Y.

TO complete a diagnosis one finds that a correlation of history taking, clinical symptoms and physical examination, and of cystoscopic, x-ray and laboratory findings is necessary for the proper work-up of a case. History taking is very important; it must involve the past as well as present history of infections—diphtheria, scarlet, grippe, pyelitis in childhood and during or after pregnancy. The colon bacillus is an important factor; if the patient has a tendency toward constipation and stasis, an infection of the kidney and its pelvis is considered—especially after exposure to wet or cold or excessive indulgence in alcohol. At least 90 per cent of kidney infections are due to colon bacilli. It is essential to go into the past or present venereal history and find out if complications occurred. Also non-venereal conditions—questions of sex life: abstinence, withdrawal, or masturbation. One must never forget that a great many patients are determined to live down tuberculosis —they feel there is a stigma attached to it, and that the present complaint has no relationship to past infection. A history of foreign bodies being inserted into the urethra must be taken into account, as many times we open a periurethral abscess and encounter foreign objects.

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We then come to physical examination. We usually examine the external genitals first. A narrow meatus is not an infrequent finding in both males and females, especially in children; is usually congenital and is the cause of many marked urological symptoms. We note the presence of anatomical abnormalities such as hypospadias, epispadias, or other individual deformities.

Under inspection allow me to cite the following: I have had a number of female patients referred with frequency of urination as their chief complaint, in whom on inspection, before a cystoscope was passed, a tentative diagnosis of their condition could be made. A good example is the following: Patient had an eczematous, bluish, shiny, somewhat indurated eruption on the vulva, extending down the buttocks on to the inner surface of the upper thighs. This skin condition was diagnosed as diabetic eczema, and the symptom of frequency as being due to diabetes. This diagnosis was made prior to urine examination, and was subsequently confirmed by the finding of sugar in the urine and by negative cystoscopic examination. Another type of case in which invariably we tentatively explain urologic symptoms by inspection is cystocele and rectocele. We have seen a considerable number of such cases and have found them negative from the urologic standpoint. Inspection gave us the diagnosis.

Urethral caruncle in women is usually located at the urinary meatus and may extend bladderward for about a half inch. Inspection will draw attention to this condition. Unless one actually attempts, however, to pass a fair sized sound one can have no idea as to the amount of obstruction the caruncle may cause.

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After inspection we proceed to palpation. We palpate the scrotal sac to ascertain if both testicles are present; also to ascertain their size, consistency, etc. If enlargement of the testicles be found one must differentiate between epididymitis, hydrocele and tumor. Both cords are palpated for thickening or inflammation and also for varicocele. If bilateral varicocele be found one must think of the possibility of a growth in the pelvis or abdomen.

After the fifth decade, if the patient gives a history of having had warts on his penis for years or a tight foreskin associated with balanitis and a developing lesion, think of epithelioma, especially if the growth has been of slow formation.

In the psysical examination of the abdomen, special notice is taken if kidneys be movable, prolapsed, enlarged or tender. Deep fist percussion of the kidney area (at costovertebral angle) is a valuable sign of kidney disease, especially calculous, if tenderness is elicited. After the physical examination, the patient is requested to void urine and the macroscopic appearance is noted—whether clear, pus-cloudy or bloody. A twenty-four hour specimen is then sent to the laboratory for microscopical examination.

Rectal examination of the prostate is the next step. The size, consistency and shape of the prostate can be determined by rectal touch, but in many cases of gonorrheal inflammation the most experienced finger fails to remark any decided change, and it is only by microscopical examination of the expressed secretion, as it issues from the meatus, or as it is obtained from the expression urine, that the presence of a gonorrheal inflammation can be determined.

A marked tuberculosis of the prostate is usually denoted by an increase in size and density; a nodular feel scattered throughout the substance. A calculus imbedded in the prostate is a rare condition but exists. Senile hypertrophy of the prostate is usually not difficult to feel; the organ bulges into the rectum and the upper margin may be within reach of the examining finger, or it may extend so far up as to be out of reach. A suspicion of carcinoma of the prostate should at once be aroused by a feeling of extreme stony hardness in one or both lobes, especially in the aged.

After performing all the above mentioned preliminaries, one is ready for cystoscopy. If there is considerable discharge, especially if purulent, it is not advisable to perform cystoscopy. On the other hand, if hematuria be present, that is the best time to perform cystoscopy, because if one waits until the bleeding stops, one may not be able to find the site of bleeding.

Cystoscopic examination of the bladder sphincter of females complaining of frequency as their only symptom not infrequently will show cystic degeneration of the bladder neck. These are the patients whom we used to call "female urinators," for want of a better name, because we did not know the cause and considered the condition as a symptom of a neurotic state. These cases of cystic degeneration of the bladder neck are curable with fulguration combined with dilation and instillations of silver.

Until very recently it was not generally known that gonorrheal stricture of the female urethra is quite a prevalent condition and that it may give a number of urologic symptoms. Its usual site is at the meatus. It may, however, extend from the meatus all the way back to the bladder. Another interesting cystoscopic point in women is that trigonitis is a very prevalent condition, in fact very much more frequent than in men, in spite of the fact that males so frequently have inflammation of the posterior urethra.

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We will now take up some of the interesting points about genital disease, including tuberculosis, and also urinary tuberculosis. I have purposely not used the frequently misused term, genito-urinary tuberculosis. Patients may suffer either from genital tuberculosis, urinary tuberculosis, or the combination of the two, namely, genito-urinary tuberculosis. With the modern methods of diagnosis we can as a rule readily place patients in a definite group and are not obliged to use the indefinite term genito-urinary tuberculosis.

In a diagnostic study of testicular inflammation, the past history of the patient, as previously mentioned, is essential. In dealing with epididymitis there are usually four different bacterial factors to be considered. The first is the gonococcus, the second mixed infection comprising the staphylococcus and the colon bacillus, the third the tubercle bacillus, and the fourth the *Spirochaeta pallida.* In the gonococcal testicle we usually obtain the history of gonorrhea, either present or past. There may be a discharge with or without gonococci demonstrable. The onset is usually sudden with great pain, marked swelling, and redness of the scrotum. The testicle is swollen to two or three times its normal size. Pain is usually so severe that the patient is obliged to go to bed unless the testicles are properly strapped and lifted upon the pubic bone. This acuity of symptoms is entirely different from that encountered either in the tuberculous or the syphilitic testicle. Gonococcal infection of the testicle is still called epididymo-orchitis in many textbooks. On careful examination of the testicle during operation or after the subsidence of the acute stage, one will find that there is no involvement of the body of the testicle; that the large size of the testicle is due to the enormous enlargement of the epididymis, the latter, not infrequently, being as large or even larger than the body of the testicle. In addition, there is an inflammation and edema of the tunica vaginalis with some accompanying hydrocele, plus some edema of the other layers of the testicle. Furthermore, when the acute inflammation has subsided, one can readily palpate the thickened, knoblike epididymis as the only remaining lesion, while if one palpates the body of the testicle one will find it perfectly normal. In other words, gonococcal inflammation of the testicle is not an epididymo-orchitis but an epididymitis.

The second type of inflammation of the testicle is that due to staphylococci and colon bacilli. This type of epididymitis usually occurs in patients who have infections of the bladder, prostate or posterior urethra. This infection not infrequently is a postoperative complication following prostatectomy, litholapaxy, hernia operation, etc.

The clinical symptoms of the staphylococcus-colon bacillus type of epididymitis are not very different from the gonorrheal type except that as a rule the swelling and pain in the testicle are not apt to be as acute or severe in the former as it is in the latter type.

The history of the tuberculous testicle is usually a chronic one. Very exceptionally a patient may have an acute tuberculosis of the testicle. Occasionally the infection is subacute. The subacute case comes to the office complaining of a lump and a slight pain in the affected testicle. Examination shows slight enlargement of the epididymis. The patient is not as acutely ill as he is in either the gonococcal or the mixed infection epididymitis. The chronic type of tuberculous testicle is the usual one. The history is somewhat as follows: The patient states that he has been struck on the scrotum and then for the first time feels a lump in the testicle, or while taking a bath discovers a lump in the testicle, or during a routine physical examination this lump is discovered. In addition to noting this lump some patients have a slight pain in the testicle; some in addition have a slight discharge from the urethra. This latter symptom is quite important and is emphasized because not infrequently a young boy with discharge plus tuberculosis of the epididymis is accused both by his parents and by his doctor of having gonorrhea. In fact, a great many of these cases are treated for gonorrhea for a considerable time and are really made worse by strong chemical and drastic mechanical methods. In urology, it is important to remember that chronic tuberculosis is stirred up into an acute or subacute process by strong silver treatment or by passing sounds or using other instruments in such cases. In fact, we use this point as an aid to diagnosis and make the following rule: that whenever the reaction following instrumentation on the urethra, bladder or prostrate is out of proportion to the instrumentation, suspect tuberculosis.

Palpation of the typical tuberculous epididymis in the adult will disclose a nodular epididymis, especially the tail. This is considered characteristic. At times, either thickening or nodulation of the vas

on the affected side is present. I have found thickening of the vas much more frequently present than nodulation. In fact, neither thickening nor nodulation of the vas has in my experience been present as frequently as one would suppose from reading the literature. In addition to these physical signs the diagnosis of tuberculosis of the epididymis is materially aided by finding an associated prostatitis and seminal vesiculitis of the indurated or the nodular type.

I believe that induration or nodulation of the prostate or seminal vesicles is a more frequent accompaniment of tuberculous epididymitis than is induration or nodulation of the vas. In other words, as far as palpation is concerned, I feel that the halfway house, the vas, situated between the epididymis and the prostate and seminal vesicles, is less frequently involved than either the epididymis or the prostate and seminal vesicles. If the vas be found thickened it is a definite aid in the diagnosis of genital tuberculosis.

Additional aids in the diagnosis of genital tuberculosis are either sinus formation in the testicle, or physical signs of tuberculosis elsewhere in the body, especially in the lungs. Further aids in the diagnosis of urological tuberculosis are the various laboratory methods: examination of the urine for tubercle bacilli and guinea pig inoculation, the latter being very much more reliable because of the difficulty of finding the tubercle bacillus in the urine. The disadvantage of guinea pig inoculation is the fact that one must wait about six weeks for a report.

Various authors speak of sinus formation as occurring only in tuberculous epididymitis. I have seen a case of bilateral gummatous epididymitis with sinus formation. In luetic testicle the inflammation as a rule is a chronic one; it is really a gumma formation—not painful; and it may have an associated hydrocele with it. A past history of chancre and of the amount of treatment taken will assist the diagnostician. Take Wassermann and, even if negative, give a therapeutic test, giving bismuth intramuscularly and potassium iodide by mouth.

I will now consider urinary tuberculosis. In days prior to cystoscopy we used to think that bladder TB was primary; today we know that TB is primary in the kidney and secondary in the bladder. The usual clinical symptoms of renal TB are increased frequency, especially nocturia, painful urination, tenesmus and, most significant of all, hematuria. This constant desire to urinate, with frequency as often as every 15 minutes accompanied by severe burning and pain on urination, merits very prompt investigation. Urine may show pus, blood and TB bacilli.

Cystoscopically, the patient not infrequently has a contracted bladder; especially is this the case if the disease is advanced and is characterized by a small amount of urine voided at a time. One also finds that the amount of solution tolerated when cystoscopic examination is attempted may be as small as one ounce and that it is difficult to get a fair degree of distention of the bladder. At times, it is almost impossible to get enough tolerance of the bladder for a fair visual field. This lack of distensibility of the bladder combined with rapidly accumulating pus, mucus and blood makes examination sometimes impossible. This reaction of the bladder to distention is characteristic of bladder TB. There is only one other condition which acts in a similar manner and that is bladder malignancy, especially if the growth is located on the bladder sphincter. There are three common types of TB of the bladder as viewed cystoscopically. First, ulcerations around the ureteral opening; second, edema around the ureteral opening; third, scattered miliary tubercles all over the bladder. The first two types are common ones and are mainly significant of primary kidney TB. One may have a combination of ulcerations and edema of the ureter. The miliary type of bladder TB is very rare.

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We now come to malignancy of the bladder for consideration. The first impression of the bladder relates to its intolerancy to retain fluid and to a marked tendency to hematuria during instrumentation. The following are valuable points of diagnosis between papilloma and malignancy of the bladder: usually an ordinary papilloma has a very slender stalk and a slender base with a distinct blood vessel coursing through its center, while malignancy usually has a broad base. Secondly, a profound cystitis usually accompanies malignancy, while the bladder is usually clean with papilloma. Bullous or cobblestone edema is a not infrequent accompaniment of malignancy, but is not present with papilloma. Marked incrustation of the growth, usually phosphatic, is a not infrequent satellite of cancer of the bladder, so much so that a great number of these malignant tumors with incrustation are diagnosticated as bladder calculi.

In searching for bladder tumors with the cystoscope I not only look at the usual site, namely, the trigone, but also make sure to look up at the vault of the bladder, especially the roof of the bladder sphincter, because occasionally a tumor is located at that site.

Occasionally a bladder tumor can be diagnosticated by palpation of the base of the bladder through the postprostatic rectovesical space. That is, one can feel induration of the trigone by palpation with the finger in the rectum. Sometimes bimanual palpation is an aid to diagnosis: one finger in the rectum palpating the base of the bladder, the other hand pushing the bladder down into the palpating hand. Personally I have found this examination negative in most cases, even where cystoscopy revealed extensive involvement of the trigonal region, a region which should be very easily palpable through the rectum. Prostatic carcinoma, on the other hand, I have found to be easily detected by palpation. This is probably due to the fact that the lobe usually involved is the posterior, which is nearer to the palpating finger than is the trigone.

Occasionally the diagnosis of malignancy of the bladder can be made by seeing pieces of the growth in the urine voided. These pieces are shreddy, flesh-like masses which have come away from the tumor. Not infrequently some of these pieces may

remain attached to the cystoscope. These pieces may be sent for diagnosis to the laboratory.

In snipping pieces of the growth by means of the rongeur for diagnosis, be sure to snip from the base of the growth, as the tip of the papillomatous stalk may show benign growth only. One must not only make sure to take a punch well down into the base of the growth, but also to take pieces from various areas, because some areas may not be malignant while others will show characteristic cancerous involvement.

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We will take a few minutes in consideration of prostatic hypertrophy. Patients suffering from so-called prostatic hypertrophy must be carefully studied clinically as well as cystoscopically. Hypertrophy of the prostate usually occurs in middle or advanced life. Such a patient usually gives a history of gradually increasing nocturia for a number of years.

However, given a case in which the whole history of symptoms is only of short duration, but nevertheless reporting quite marked symptoms, one can suspect trouble other than hypertrophy and most likely malignancy.

A prostatic with a medium degree of obstruction who is voiding fairly well suddenly develops retention. What is the usual explanation? The explanation is the same as that for a patient with a stricture of the urethra of size 20 to 24 Fr. who suddenly develops retention. The stricture case develops an acute edema on top of a stricture of 20 to 24 Fr. and closes off the urethra so that no urine can come through. The same is true of the prostatic case. Due to constipation, getting wet feet, alcoholic or sexual overindulgence, an acute edema takes place within the region of the prostatic hypertrophy and causes retention. After the acute edema passes, you will be able to pass the same size of instrument that you could have passed prior to the retention.

There are some urologists who have recently stated that cystoscopy is contraindicated in the old man with prostatic hypertrophy as there is too much trauma, shock, bleeding, etc., and also because you can decide without the cystoscope, by clinical symptoms, that the patient probably has an hypertrophied prostate. This line of argument is not tenable because, should any untoward complication occur as the result of cystoscopy, one can always go ahead and perform suprapubic drainage. Also, we have all seen cases where the finger in the rectum showed a normal prostate and the cystoscope showed marked intraurethral encroachment or intravesical protrusion of the prostate. In other words, we know since the advent of the cystoscope that a prostate may enlarge in any one of three or all three directions, that is, intrarectal, intravesical, or intra-urethral. The surgeon should know what complications or associated conditions may be present in the bladder, such as stones, diverticula, new growths, etc., and also whether the prostate be small, hard and fibrous or a large, adenomatous prostate. These points he must know in order to decide what operation to decide upon, whether the suprapubic, perineal or resectoscopic. I believe a surgeon who does not avail himself of these advantages is working in the dark.

As soon as the diagnosis of a fairly large stone in the bladder is made the tendency for the average surgeon who can do a litholapaxy is to crush the stone, without studying the conditions associated with that stone, with the result that the condition which caused the stone will soon cause a recurrence of calculus formation. Such a case should be studied carefully cystoscopically before doing litholapaxy, in order to know whether there is an associated prostatic obstruction and how extensive it really is, because it is quite likely that, if prostatic obstruction is of quite a severe degree, prostatic enucleation is of paramount importance and not crushing. In other words, one must get rid of the cause. The white stones are usually phosphatic and are readily crushable while the dark or black stones are usually oxalate stones and are too hard to be crushed.

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I believe it will be of great interest, at the present time, to speak of tabes. From a urological standpoint it offers very interesting points in diagnosis. A very early and valuable sign is loss of sphincteric and anal contraction. The pupils are examined for the Argyll Robertson sign and the Romberg sign is looked for. Cystoscopically there are three important signs of value: the first is relaxation of the internal sphincter, so that on viewing the sphincter one finds the waterfalls gone, that is, the inferior segment of the sphincter is relaxed so that the bladder and urethra are one; second, there are marked trabeculations throughout the bladder in spite of no visible obstruction at the neck; third, gaping ureteral openings (golf hole) are noted, so that the urine does not spurt out but, so to speak, drops out.

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A word or two about pyelograms. These are very important—give you definite outlines of major and minor calices; twenty per cent sodium iodide solution is used as a medium. They aid notably in the early diagnosis of tumor of the kidney and in the detection of a pelvis that is deformed or obliterated. A filling defect or elongation or distortion of a major or minor calix is suggestive and diagnostic of neoplasm.

Summary

1. History and physical examination are necessary supplements to cystoscopic examination.
2. In studying chronic epididymo-orchitis, remember that there are few distinct classifications; also that syphilis attacks the testicle mainly and that TB attacks the epididymis mainly. Also that so-called gonorrheal epididymo-orchitis is really an epididymitis alone.
3. A great many neurotic urinations, especially in women, are due to pathological changes in the bladder sphincter and to trigonitis as a result of concomitant cystocele and rectocele.
4. The cystoscope should be used in the diagno-

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Warm Versus Cold Applications in Otolaryngology

• PHILIP FRANK, B.Sc., M.D., Otolaryngologist, Israel Zion Hospital of Brooklyn; formerly Assistant Otolaryngologist, St. Louis City Hospital; Associate Otolaryngologist, Jewish Hospital of St. Louis, etc. Brooklyn, New York

SOME time ago I was asked by a physician to see a woman, in the early thirties, who had been laid up for three days with an "acute laryngitis" following grippe. The patient had complete loss of voice and she was feeling more and more discomfort and increasing difficulty and pain on deglutition. When I reached the patient's home I found her in bed, her neck snugly packed in ice and feeling almost frozen. She was unable to utter a word and she couldn't even swallow saliva, which dribbled from the corners of her mouth. She also had a hacking cough which increased her pain and discomfort all the more. Her chest, pharynx, nose and nasopharynx were negative. Laryngoscopic examination of the larynx was negative: perfect mobility of the vocal cords, no edema (on the contrary a blanched aspect of the arytenoids and other parts), no growth or induration of the cords or surrounding tissue, or of the epiglottis. Removing the ice-bag and substituting warm compresses, together with warm inhalations, acted like a charm and before the day was over her voice had returned and she felt well enough to leave her bed and dress.

Assuming that this patient had had an upper respiratory infection, probably including a tracheitis, it is hard to comprehend why the ice bag was ordered. And even if she had also had a laryngitis, what was the use of it?

It is a common experience to encounter a misuse of cold applications in otolaryngology, regardless of what virtues they may possess in other regions of the body. So far as otolaryngology is concerned I have become very cynical of their employment altogether. .

How often does one observe a patient with an acute follicular tonsillitis, or with a peritonsillar abscess either brewing or full-fledged, suffering untold agony mainly because of the ice-bag around his neck. What the parts need is warmth, not cold. Far from "limiting the congestion," which is the idea behind the use of the ice-bag, the chilling of the surface tends to congelate the lymphatic flow besides producing a constricting effect on the more superficial muscle fibers, and it defeats the very purpose for which it was intended. Every patient whom I have ever seen under such conditions has given a sigh of relief when the cold was removed and he was either let alone altogether or warm applications substituted.

How often does one observe a patient with a "threatened mastoiditis" lying in bed with an ice-bag to the affected side. More often than not this bag, even though supposedly tied in place, will shift its position to the occiput or be found lying on the pillow at some distance away. Should the condition clear up the effect of the cold is praised. But I still have to be convinced that cold ever really aborted a mastoiditis. I have seen cases clear up without ice applications and I have operated upon many notwithstanding the assiduous application of ice to the part by a special nurse engaged by the attending physician for that very purpose. The fact is that cold has nothing to do with the evolution of a mastoiditis. I look upon it merely as a gesture that does not affect the outcome. Other factors, type and virulence of the infecting organism, constitutional reaction of the patient, peculiarities of the bone structure, etc., determine that.

But cold being one of the empirical heritages of the medical profession I suppose it will prove to be a die-hard and will continue to be used regardless of anyone's iconoclasm. But in otolaryngology it certainly has a very questionable field of utility.

The stereotyped use of an ice-bag after tonsillectomy appears to be a rather entrenched institution. It is used with the idea that the cold will lower the coagulation time of the blood and thereby avert hemorrhage. Now cold may lower the coagulation time of the blood "in vitro" but there is no proof that it will do so "in vivo." Post-tonsillectomy hemorrhage occurs usually either from a tag of tissue that has been inadvertently left, the presence of an abnormally situated vessel, or from some underlying general condition favoring hemorrhage (marked hypertension, blood dyscrasia). Where hemorrhage occurs from any of these causes, tons of ice applied externally will not stop it. It must be controlled by appropriate measures (removal of the offending tag of tissue, pressure in the tonsil fossa, clamping or ligation of the bleeding vessel, thromboplastic injections or local applications, etc.). If anything, the cold around the patient's neck adds to his or her discomfort and the patient has felt great relief when it was removed. The same remarks apply to sucking ice. Because of the anesthetic the patient feels a dryness in the mouth, especially after local anesthesia, and all that is necessary is to allow the patient to moisten the lips. The idea of sucking ice to prevent hemorrhage is a fallacy. Many cases in routine hospital practice operated upon by internes I have had to control by adrenalin and tannic acid applications with pressure or by ligation that were bleeding or oozing steadily in spite of jarsful of ice.

I suppose that somebody, somewhere, has seen cold applications apparently stop a nasal hemhorrage. I doubt if I ever have. Of course I have seen patients bleeding profusely, with their faces almost encased in ice, which stopped just as soon as the head was tilted backward from its forward position. I have seen profuse hemorrhages stop spontaneously just that way, with ice and without ice. And many a case I have had to pack in spite of all the ice. As to whether the external application of ice to the nose, any more than a key to the back of the neck, is going to constrict the vessels in the nasal mucous mem-

brane so as to control hemorrhage from a small ulceration or from a ruptured vessel, I am very dubious.

For some unexplainable reason I have seldom seen an ice-bag used in earache. It seems to be a sine qua non, to laymen as well as physicians, that in this condition heat is required. But why only in this condition? I would say that it is equally applicable in every other otolaryngological condition. Hence I never use cold. But, I recall the Admiral in Gilbert and Sullivan's "Pinafore" when he states that he *never* kissed a girl: "WHAT? *NEVER*"? and modify my assertion with: "well . . . hardly ever."
416 Ocean Avenue.

The Prevention of General Paresis and Other Late Manifestations of Neurosyphilis

(Concluded from page 134)

3. To use malaria or other means of pyrexia, unless contra-indicated, in those cases of asymptomatic neurosyphilis which prove resistant to special treatment, as indicated by frequent clinical and laboratory examinations.
4. To use pyrexia treatment in cases of neurosyphilis showing definite symptomatology of early paresis, unless there is a serious contra-indication.

"Would you agree to something like the above, or do you think this advice is conservative? Your further comments will be very much appreciated."

The replies to this letter strongly approved the procedures suggested. One authority expressed the opinion that "the prophylactic value of pyrexia treatment is of greater significance than its therapeutic value." One distinguished writer would not make spinal puncture routine as early as one year after beginning treatment, while another would make it routine after completion of the first course of treatment. But such minor differences of opinion are not significant when all were agreed that pyrexia treatment of asymptomatic neurosyphilis, proved resistant to chemotherapy, should be instituted as a measure of prophylaxis of general paralysis of the insane.

It seems correct to suggest, on the basis of the discussion and comments of persons well qualified to express sound views regarding the prophylaxis of dementia paralytica, that an effort should be made to secure the more general application of pyrexia to resistant cases of asymptomatic neurosyphilis. How may this be done?

The persons directly concerned with the various aspects of this problem in each state are the state and local health authorities, the state mental hygiene commission, the physicians in charge of syphilis clinics, the physicians in charge of mental hospitals, and other syphilologists and psychiatrists. It is suggested that in any state in which the leaders desire to grapple with the problem of preventing paresis, a beginning may be made by calling together in conference the persons who know most about neurosyphilis and who are responsible for the medical care and custody of developed cases of paresis. By conferences and cooperation a practical plan could be worked out for carrying out the procedures which are necessary for the discovery of asymptomatic neurosyphilis in clinic patients (and perhaps also private patients), for assuring appropriate treatment including pyrexia when and if indicated, and for continuance of medical and social care and supervision of patients after the completion of pyrexia treatment. It should be possible especially for tax supported city, county and state medical institutions to cooperate in such an effort. The many medical, social and economic items of the program, such as indications for pyrexia therapy, method of producing pyrexia, number of crises, type of after care, can all be worked out in each state or community in accord with the best judgment of those in charge of the project. No new equipment, and in most cases, no new personnel are required. Only an extension of practices now commonly carried out in the best clinics and, in particular, close cooperation between the syphilis clinics and the mental hospitals are required.

The prospective results of the application of the prophylactic method discussed above are that there would be a substantial decrease in the number of cases of dementia paralytica, and a commensurate decrease in the cost of medical care of such cases, and in the concomitant suffering and dependency. It is recommended that the general plan suggested in this memorandum should be given an adequate trial in the United States.

Practical Clinical Points in Urological Diagnosis

(Concluded from page 141)

sis of hypertrophied prostate in order to know the extent, location and size, and in order to discover if associated complications are present, such as diverticuli and stones.

5: Every case of pyuria or hematuria merits prompt investigation as it may be the first sign of a condition essentially progressive and incurable unless there be prompt surgical intervention.

320 Second Avenue.

Investigation of New Biologic Test for Hormones in Pregnancy Urine

ISRAEL S. KLEINER, ABNER I. WEISMAN and HARRY BAROWSKY, New York (*Journal A. M. A.*, April 13, 1935), employed the new biologic test for hormones in pregnancy urine, used in experiments by Kanter, Bauer and Klawans, who intimate the usefulness of the female bitterling in the diagnosis of pregnancy. They used the lengthening of the female ovipositer as a criterion of positive reaction for the hormones of pregnancy urine and suggested a method of standardizing the female bitterling. Only nine of the authors' twenty-one urines from pregnant women gave definitely positive reactions. Of seven from normally menstruating nonpregnant women, four gave positive reactions. One male urine of the four tested was positive, and a later specimen from the same male gave positive reactions in every one of the six fish tested. Urines from women who had passed the menopause were positive in one of three cases. Boiled urines from pregnant women were positive in some instances and negative in others. These results agree with those of Szusz and indicate that this biologic reaction is not a specific test for pregnancy as Kanter, Bauer and Klawans intimate. Moreover, the latter investigators do not report as great a variety of controls as the authors have and as Szusz previously reported. The observations that nonpregnant female urines, postmenopausal urines, male urines, boiled pregnancy urines and physical disturbance may bring about lengthening of the ovipositer would seem to show that a standardization of a fish, as suggested, would be extremely difficult if not impossible. Whether the phenomenon is due to the presence of estrogenic substance or to some other hormone or to some other substance remains to be determined.

Our Public Health Activities

• J. Louis Neff, Executive Secretary, The Medical Society of the County of Nassau, Mineola, N. Y.

I HAVE been asked to discuss with you today the rather extensive public health activities of our society. While there has been no neglect of the medical economic problems or of our public relations activities, it is true that the public health activities of the Society have been a little bit greater than might be considered normal. To understand the reason for this emphasis upon public health it is necessary to have a picture of our local problems.

Nassau County is situated on the east border of New York City. It has an area of 274 square miles and a population which has increased from 126,120 in 1920 to 303,053 in 1930, making it the fastest-growing county in the United States for that census interval. While the depression has slowed the rate of growth, estimates of our present population, recently undertaken as a work relief project, indicate a population in excess of 350,000.

This population depends to a very large extent for its livelihood upon the vast army of commuters employed in New York City, and being amply supplied with beaches, golf courses, and other recreational facilities, the county attracts hundreds of thousands of visitors during the summer period, it being not at all uncommon to have as many as 100,000 visitors at one resort on a warm summer Sunday. All of this makes our health problem more closely resemble that of a city than of a rural community or of a collection of villages not so closely adjacent to a large center of population.

It has been rightly said that never in the history of civilization has there been such a mass movement of population as has taken place out of New York City during the last two decades. The "Exodus of the Children of Israel" pales to insignificance compared to the exodus out of New York City into the adjacent suburban counties of New York and New Jersey.

This tremendous growth has brought with it civic problems owing to the inability to provide facilities in step with the growing need. Not the least of our civic deficiencies are our hospital and health setups. There are, within the county, only a total of 390 hospital beds at the present time. To these will soon be added approximately 200 beds in a county general public health hospital for which the Medical Society has been campaigning for many years. This was finally voted by the taxpayers after a spirited and vigorous period of publicity by the Society, but even with its opening the county will have less than two beds per thousand population.

The health law under which we operate provides for a health department and a health officer for every incorporated village, every city, and every township in the county. There are within the county 62 incorporated villages, 46 of which have less than 3,000 population, each with its own health officer. The Medical Society is still trying to secure a County Department of Health which would unify this discordant group, but until such a county department is organized fully half of the work of the Medical Society office will be devoted to work either in health or hospitalization, which properly belongs to the municipality.

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In 1923, when our Medical Society first engaged the services of an Executive Secretary, we had a membership of 81. Of this group there are still on our membership rolls only 44, but our present membership is 283, so that in the twelve-year period of the Executive Secretary's experience there has been a net gain of 239 members. These men were, almost exclusively, young physicians just out of hospital internship when they joined the Society, so that we have to work with a young, active, progressive group.

So much for the background: first, a very unusual problem, and, second, a very unusual group of medical men seeing the problem and attacking it vigorously.

Our first venture into the field of public health activity came with the institution of our diphtheria campaign in 1923. We have seen our morbidity rates drop since that time from 158 cases per hundred thousand population in 1923 to 5.7 cases per hundred thousand population in 1934. The most spectacular drop occurred since 1929, when the Society began to succeed in its program of eliminating the clinics which were devoting their attention largely to school children and concentrating on the infant in the office of the family physician. The case rate in 1928 was 82 per hundred thousand, and by 1930 it had dropped to 29

We do not believe that this gratifying reduction in morbidity is due to an accident. The New York City figures are considerably higher and, with the constant exposure of our children to the children of New York City, if our children were not protected it seems impossible that our figures would be much lower than theirs. Unfortunately, however, we have not been able to induce our members to report the actual immunizations accomplished, but must depend for our appraisal upon the vital statistics. Although this would seem to be a very satisfactory yardstick, public health authorities are inclined to depend more upon the number of children reported as immunized than upon the cases of the disease reported, in determining the status of a community with respect to diphtheria immunizations.

Presented before the Informal Conference of Executive Secretaries at the Ritz Carlton, Atlantic City, June 12, 1935.

Another very interesting experiment in public health work will be concluded when the county hospital opens, and has taught us a great deal about the possibilities of medical participation in health activity. On March 1, 1933, there was established a Tumor Clinic, temporarily housed in the County Tuberculosis Institution and operated under the joint sponsorship of the Medical Society and the local Cancer Committee. The Executive Secretary is the Secretary of the Cancer Committee and the Chairman of that Committee was at that time President of the Medical Society, which, of course, made the cooperation very much simpler but which also points out the advisability of the medical group participating actively in the health projects of the community.

The Tumor Clinic was based on the idea that such an organization could be operated without interfering with the traditional relationship of patient and physician, and that it was possible to make it of as much value to the medical profession as to the patients treated. For that reason no patient has been admitted to the Clinic except upon the written request of a physician. We have always maintained the attitude that the Clinic is merely the agent of the family physician, who is kept advised from time to time of the progress of the patient. To further emphasize the fact that this was a doctors' clinic, we have held weekly conferences presided over by a specialist in neoplastic diseases.

At these conferences, to which are invited all the medical men in the community, we have presented for discussion new cases for diagnosis and treatment, as well as interesting follow-up cases.

We are rather proud of the fact that during the first twenty-seven months of our operation 847 new patients were seen at the Clinic; further, that they were sent to us by no fewer than 305 physicians and 16 hospitals and other institutions. We conducted 83 conferences with an average attendance of a little more than 25 doctors. 130 individual physicians have attended these conferences one or more times and each week were able to study more cases of cancer than any one member of the group could expect to see in his private practice in the course of a year. It is very gratifying that during this entire period we have had only one complaint from a doctor that we have "stolen" a case or have admitted a patient who belonged to a private physician. Interestingly enough, this offense had been discovered before the complaint was received, and the individual responsible for it had already been discharged.

Our latest venture into the field of public health is still in the experimental stage, but we believe we shall hear more of it in the future. In an attempt to curtail the spread of clinics in the county, and mindful of the universal experience of all other communities where clinics have been established, the Society determined to offer as a substitute for the clinics something which would be so much superior that the sponsors of the clinic movement would have no cause for complaint, and we are now in the process of setting up what we shall know as the "Public Health Hour."

Under this scheme every member of the Society will be expected to set aside one or more office periods a week, separate and apart from office hours, at which time he will see at a reduced fee, or for no fee at all, patients who ordinarily would go to clinics or dispensaries. These charity public health hours will be advertised to the public health nurses and social workers of the county, and an attempt will be made to secure their cooperation in assisting us in our efforts to prevent unnecessary abuses by those not entitled to charity care. We have in progress at the present time three experiments on the basis of this idea, all of them so successful that we are ready to go ahead on a county-wide basis. If our larger experiment proves to be equally successful you may be sure that this group will hear about it. If it proves a failure you may be sure that we shall be equally frank in recording our failure and attempting an honest explanation for it.

Osteomyelitis in Infancy

William Thomas Green, Boston (*Jour. A. M. A.*, Dec. 7, 1935), points out that osteomyelitis of infancy is a disease more frequently due to Streptococcus haemolyticus than to Staphylococcus aureus in which, if the child survives the acute infection, the prognosis for complete and rapid recovery is excellent. In explanation of the differences of the disease in infancy, certain of the local manifestations of the infection must be considered as well as the fact that streptococcic osteomyelitis is more frequent than staphylococcic osteomyelitis. Staphylococcus is liable to give rise to a more destructive process even in infancy. The anatomic construction of the bones and certain physiologic characteristics of this age are factors in delineating the character of the disease. Osteomyelitis in infancy almost uniformly has its origin in the metaphysis as it does in older children. Once the infection is under way it follows the path of least resistance: In infants there is a minimal amount of cortical bone at the metaphysis, so that the spread to the subperiosteal space is extremely direct. The periosteum, more loosely attached at this age, is dissected from the cortical bone, and the consequent subperiosteal abscess may rupture into the soft tissues without necrosis of the shaft. This process goes on quite rapidly, and a secondary abscess may be present as soon as the second day after onset. Gross sequestration is rare; what necrotic bone there is is usually absorbed rapidly. Likewise the healing process goes on more rapidly in infancy. Three illustrative cases are presented. Roentgenograms taken to observe the course of the disease may exhibit destruction with involucrum surrounding the length of the shaft and suggest that gross sequestration will surely occur. Osteomyelitis must be suspected in any infant with an acute illness associated with a sensitive extremity. Other conditions to be considered particularly are abscess (subfascial abscess), septic joint, scurvy and syphilis. In infancy, the prime consideration is the treatment of the acutely ill child, not the local lesion. If the infant survives the acute illness, the disease will be brief, with residuum in the bone unusual. Unless an abscess is palpable and the child is in excellent condition on admission, it is the author's custom to immobilize the part, apply poultices and give the indicated supportive treatment. Usually the child's condition improves, localization of the process occurs, and the exact site of the lesion may be recognized. Frequently he allows a palpable abscess to form before an operation is done. This occurs quite rapidly. At operation it is not necessary to carry out a procedure on the bone if the secondary abscess is adequately drained. The operation should not be complicated in order to drain the bone. The wound is packed with petrolatum gauze and immobilized, usually in plaster. The first dressing is done in ten days and the wound is repacked at weekly intervals. The interval of ten days before the first dressing allows granulations to form so that the wound is no longer sensitive. Usually the wound is entirely healed in from four to eight weeks.

Clinical Notes, Suggestions and New Instruments

Spontaneous Hypoparathyroidism Causing Epilepsy

• George L. Fair, M.D., Oyster Bay, N. Y.

CASE REPORT

HISTORY: V. L.—a girl of 19 years, a high school student, came in for consultation November 8, 1934, complaining of attacks of epilepsy of increasing frequency and severity of four years duration.

The child was a hard breech delivery and hard to resuscitate at birth. Development from then until June, 1930, was quite normal. There was no history or evidence of rickets in childhood. She could read the alphabet at one year of age, and was an honor student at public and high school. Until the above mentioned date she was exceptionally bright at home and school. She was popular and sociable; emotionally stable.

In June, 1930, she began to have epileptic seizures of prominent parietal bosses, eyebrows meeting over the nose. Chvostek and Trousseau's signs were not elicitable. The pulse was 72 and the blood pressure 112 over 70.

Laboratory Findings: Urine of low S. G., otherwise negative. Blood Wassermann negative. Basal metabolic rate was normal. The one significant and diagnostic finding was a very low blood calcium, November 17, 1934, of 6.1 mgms. Blood sugar December 12, 1934, was 110 mgm. per 100 c.c.

X-ray Findings: The long bones were not examined for state of calcification, but x-ray of the skull taken November 20, 1934, showed no evidence of excess or defective calcification or other bony disease. This x-ray showed a very small sella turcica with bridging over of the clinoid

Date	Diet	Treatment Medication	Paroidin Injections	Blood Calcium	Results
Nov. 8/34	Ketogenic..	Bromides gr. 10 q.d.....	.....	Nov. 17/34— 6.1 mgm.	Convulsions once a week. Two in 1 day.
Nov. 15/34—	Ketogenic..	Calc. Lact. gr. 15 q.d.; Bromides gr. 60 q.d.; Ant. Pit. Extr. gr. 4 q.d.; Inj. Antuitrin "S" 1 c.c.	.....	.....	.....
Nov. 22/34	Ketogenic..	Same as 11/15/34. Inj. Ant. "S"—1 c.c.	.....	.....	Convulsions Nov. 18 & 21/34.
Nov. 25/34	Ketogenic..	Ant. Pit. Tab. stopped.....	.....	.....	Reports severe reaction from Ant. "S."
Nov. 28/34	Ketogenic..	Ant. Pit. Tab. recommenced...	.....	Nov. 30/34— 8.8 mgm.	.....
Dec. 3/34	Ketogenic..	Brom. Pit. & Calc.....	40 units	.....	.....
Dec. 5/34	Ketogenic..	Brom. Pit. & Calc.....	50 units	.....	.....
Dec. 7/34	Ketogenic..	Brom. Pit. & Calc.....	50 units	.....	.....
Dec. 14/34	Ketogenic..	Same but Calc. discontinued one week	Discontinued for 1 wk.	Dec. 12/34—10.5 mgm.	.....
Dec. 21/34	Ketogenic..	Discontinued Bromides & Pituitary. Calcium recommenced..	100 units	Dec. 20/34— 9.0 mgm.	Blood Calcium fell 1½ points on omitting Calc. and Paroidin.
Dec. 28/34	Ketogenic..	Calc. gr. 15 a day.....	100 units	.....	.....
Jan. 7/35	Ketogenic..	Luminal gr. 1½ b.i.d. Calc. gr. 15 a day.....	None	Jan. 7/35—11.3 mgm.	Seizures Jan. 3 & 7/35.
Jan. 9/35	Ketogenic..	Same	30 units	.....	.....
Jan. 17/35	Ketogenic..	Same	30 units	.....	Hysterical attack.
Jan. 23/35	Ketogenic..	Same	32 units	Jan. 23/35—10.9 mgm.	.....
Feb. 6/35	Ketogenic..	Same	32 units	.....	Last seizure Jan. 25/35.
Feb. 13/35	Ketogenic..	Same plus Viosterol gtts. 10 q.d.	32 units	.....	.....
Feb. 20/35	Ketogenic..	Same plus Viosterol gtts. 10 q.d.	32 units	Feb. 21/35—11.1 mgm.	.....
Feb. 27/35	Ketogenic..	Same plus Viosterol gtts. 10 q.d.	25 units	.....	.....
Mar. 6, 13, 20	Regular diet	Same plus Viosterol gtts. 10 q.d.	weekly dose 25 units..	Mar. 21/35—10.4 mgm.	.....
Mar. 27/35	Regular diet	Same plus Viosterol gtts. 10 q.d.	30 units	.....	.....
Apr. 3, 10, 17, 24	Regular diet	Same plus Viosterol gtts. 10 q.d.	30 units weekly.....	Apr. 22/35—11.4 mgm.	.....
May 1/35 to Jan. 16/36	Regular diet	6/26/35 Stopped Luminal. Calc. gr. 15 q.d..... Viosterol—10 minims q.d.....	29 units weekly..... 30 units weekly.....	June 25/35—11.0 mgm. Oct. 1/35—10.4 mgm. Jan. 16/36— 9.6 mgm.	Jan. 16/36. No seizures for one year.

"grand mal" type. The first one had its onset when she was hit with a basket-ball. Others came on when doing gym. work. Later stubbing the toe on a radiator or step would elicit them. At first 4-6 months apart, at the time of seeing the patient they came every two weeks. They had no apparent relation to menstruation or hour of the day. Excitement did seem to help precipitate them. Formerly, she had a definite aura (twitching about the mouth), but recently no warning. Since the onset of the convulsions she had become progressively more dull mentally and childish emotionally. Menstruation had always been regular and normal.

Examination: The girl seemed to be of normal development. Her weight was 126 pounds, height 5′ 5″. She was wearing glasses for slight degree of myopia. There was no abnormal distribution of fat or hair. There were some suggestive signs of hypopituitarism of the anterior lobe deficiency type such as: separation of the upper incisor teeth, overcrowding of the lower teeth, large head with processes. A gastro-intestinal series done by a previous consultant was said to be negative.

Therapy: Previous to seeing me the patient had been on luminal in large doses with no effect. It had been stopped for some weeks prior to seeing me. Treatment with anterior pituitary by mouth and injections of antuitrin "S" had to be stopped as they gave her vertigo and made her irrational at times. A ketogenic diet alone following cessation of pituitary treatment was of no avail and caused some epigastric discomfort.

Causation of the seizures by external painful stimuli together with the very low blood calcium led the author to believe he was dealing with a case of hypoparathyroidism with generalized tetanic seizures. Although the author had never seen her in one of these attacks, she did not bite the tongue nor have excessive salivation according to the descriptions given. There was spasmodic twitching of the muscles of the extremities and, recently, loss of sphincter control.

Accordingly she was at first put on a ketogenic diet. Luminal 1½ grains b.i.d. (later discontinued, June 26, 1935) and calcium 15 grains a day were both begun on November 15, 1934 (continued to date). Injections of paroidin (Parke, Davis & Co.) were begun on December 3, 1934, at first in frequent large doses, later regulating it empirically by blood calcium readings to a maintenance dose of 29 to 30 units once a week. Because of seizures January 3rd, 7th, and 25th, while blood calcium was normal, viosterol, 10 minims a day, was begun February 13, 1935, and continued to date.

The convulsion on January 25th was the last convulsion (one year now). The patient leads a normal existence, has become normal mentally and emotionally. Her weight remains about the same—126-130 pounds.

On the opposite page is a schedule of findings and treatment in the case.

Comment

This case serves to illustrate the typical syndrome of hypoparathyroidism: symptoms of tetany, low serum calcium, and bones which appear on x-ray to be of normal density. It also brings out clearly the necessity of using all three of the therapeutic agents, now clearly apparent in the literature describing these cases, namely: calcium, parathyroid hormone and vitamin D (as viosterol). Without parathyroid extract, but under calcium lactate, 15 grains a day, the blood calcium in this patient rose to 8.8 mgms, but seizures did not cease. Seizures still occurred with normal blood calcium under the use of parathyroid extract and calcium. However, with the addition of viosterol to the therapeutic regimen, the patient has been entirely free for one year. The value of viosterol as an adjunct in treatment has been pointed out by Bauer & Marble (1), Albright, Bauer & Rossmeil (2), Reed & L. Seed (3). Apparently the reason lies in the stimulus to calcium absorption. Other adjuncts mentioned (2), but which the author did not have to use, are ammonium chloride and thyroxin.

Although acute parathyroid tetany is not infrequent, especially after thyroid surgery, chronic parathyroid deficiency with tetany is comparatively rare. A point of unusual interest here is the spontaneous onset in a young girl of 15 years of age from no apparent cause.

The tendency for the blood calcium to drop with omission (see schedule under December 21, 1934) or lowering of the dose of parathyroid extract (February 27 to March 20, 1935) has caused the author to refrain from discontinuing its use, though a small weekly dose occasions no discomfort to the patient.

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Scabies Among the Well-to-do: Some Principles Illustrated by the Elite

John H. Stokes, Philadelphia (*Journal A. M. A.*, Feb. 29, 1936), discusses fifty-three cases of scabies among the better class of people, the intellectual and professional elect. Of the fifty-three, thirty-seven had seen one or more physicians without relief. Of the infestations in this series whose source could be traced, seventeen occurred within the family, ten were incident to travel, six occurred as visitor or visited, two were sexual contacts. Hotels figured three times, one of them a princely hostelry; a swank private hunting lodge was incriminated once, steamers twice, vacations four times. In understanding why the diagnosis of scabies fails, the following items are of importance: (1) a low index of suspicion—partly a misuse of social criteria; (2) unfamiliarity with the typical scabetic symptom syndrome; (3) failure to see or recognize the burrow without the use of the lens; (4) failure to distinguish between scabies and its complications and sequels—i. e., to recognize the underlying trouble; (5) failure to hunt up the contacts for confirmation or illumination, and (6) misinterpretation or mishandling of a therapeutic test. When the diagnosis was finally made, it was found to rest, in order of importance on: (1) the burrow, especially on the hands and on the penis, (2) nocturnal itching, (3) distribution of the eruption and (4) the identified contact or source. In order to identify scabies in a doubtful case it is necessary to strip the patient completely. Only by having the patient undress completely can one study the geography of the situation and recognize the "map" or distribution of scabies. The preliminary survey for distribution accomplished, the next step is a search for burrows by selecting a thin-skinned region and with a biconvex lens of two diameters or a loupe of up to five diameters magnification the papules should be inspected for doublets and their connecting burrow, the zigzagness of which varies with their distance apart. In his enthusiasm, the doctor should not show his find to the patient (acarophobia). The infection with syphilis of the scabetic patient who has genital lesions, an occurrence of unknown frequency but by no means rare, should always be borne in mind, especially when there have been repeated sexual exposures. Complications occurred in thirty-three of the author's fifty-three patients, notwithstanding their good hygiene and better than average intelligence. The sensitization phenomenon postscabetic urticaria developed in nine. Parasitophobia or acarophobia (seven cases) is a particularly distressing complication of a scabetic infestation, for which physicians themselves may too easily be responsible. Equal in importance with urticaria (nine cases) is the secondary dermatitis, which is to some extent the sequel of treatment in sensitive persons and especially in those who repeatedly "cure" with sulfur and other irritant ointments, either with or without explicit direction from their physicians. A fourth important complication is what amounts almost to a "sensitization" to pyogenic organisms, resulting in bouts of impetiginous dermatitis, sometimes highly refractory to treatment. These may or may not have an "allergic" factor, as in the scabetic urticaria. They seem also to be particularly frequent in those who are free users of carbohydrate, especially sugar, and of alcohol. The bath complications (bath itch, bath dermatitis) are confused with the sulfur pictures and usually occur in pure form, so to speak, only in ichthyotic persons, whose congenitally dry, greaseless skins resist irritants less effectively than do the seborrheic, who may actually profit by a sulfurous rub-down or two. So far as preparations go, almost anything containing Peru balsam and volatile sulfides, or either sulfur or betanaphthol in a concentration of not less than 10 per cent for the adult, will be effective. The use of an ointment base as a defense against excessive action of the drug and a protection against bath pruritus is desirable. The directions for treatment that the author issues to his patients are given them in writing as follows: *First Night:* Bathe with hot water and soap, soaking well and scrubbing all burrows and pimples open with brush. Rub in ointment over whole body except face and scalp. Special attention to hands, arm pits, waist; nipples, groin anr genitals (external). *Next Morning:* Rub ointment again, without bath. Wear same underwear. *Next Night:* Rub ointment third time, without bath. *Second Morning:* Bathe thoroughly, do not apply ointment, powder the body with borated talcum all over. Then put on fresh underwear. Have all bedding changed (sheet, pillow cases). Send blankets and everyday suit to dry cleaner. Send linen and underwear to laundry. Return to the office one week from today. Use no more ointment unless ordered. A failure to cure with the first course must be rather carefully handled. A week is hardly enough time to determine relapse, so that a longer period may be allowed to pass before a second course is given. The most striking evidence of the success of a therapeutic test is the immediate relief of the intolerable itching on the night of the very first application of the "cure." Failing this sign, treatment is hard to interpret in its objective results within two weeks, and the urticarial complications may by producing apparent "recurrence" seriously confuse the result. The urticarial, pyogenic and eczematoid sensitization complications of scabies yield best in from seven to ten days, in the author's experience, to fractional doses of x-rays to the principally involved areas, plus autohemotherapy, and a sharp temporary reduction in carbohydrate and alcohol intake. Starch baths, olive oil and lime water lotions, or ammoniated mercury and boric acid ointments to the worst involved areas, with large doses of calcium salts by mouth, are more slowly effective. A weak ammoniated mercury ointment for two days and the substitution of styrax and betanaphthol for sulfur may be necessary in infants or children with severe impetiginous complications.

Cancer

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Symposium on Present-Day Treatment of Malignant Tumors of the Genito-Urinary Tract

AMERICAN JOURNAL OF SURGERY, April, 1935. 28:5

• Frederick J. Garlick, M.D., Rochester, New York

I. MALIGNANT TUMORS OF THE BLADDER. ABRAHAM HYMAN.

TWO methods are described by Hyman—first, suprapubic cystotomy with implantation of radon seeds. Second, excision of the tumor.

The advantages of the suprapubic cystotomy over cystoscopic irradiation are:—(1) It is difficult to ascertain cystoscopically the exact extent and character of the neoplasm; (2) The degree of infiltration of the bladder wall can only be definitely determined by a suprapubic approach; (3) The tumor can be perfectly visualized, affording accuracy in the distribution of radon seeds.

Suprapubic cystotomy is usually done under spinal anesthesia, which effects the greatest relaxation of the abdominal muscles, the bladder being emptied before operation. After securing good exposure of the tumor, the proliferating part of the tumor is removed with the electric endotherm and the base lightly coagulated. Then the radon seeds are inserted, each containing 2½ mc.

Selection of cases for the above treatment include infiltrating carcinoma, especially large growths involving the neck of the bladder trigone; large multiple bladder tumors or tumors that have recurred after resection or cystoscopic radon treatment; and inoperable tumors calling for control.

Complications of the radium treatment: Renal complications resulting in infection of the kidney, stricture of the ureter, secondary stone formation.

End Results:—Eighty-one cases treated with radon seeds. Mortality was 13 per cent. Seven cases not followed. Ten cases cured for five years and over. Four cases cured for less than five years.

Suprapubic resection of the bladder wall is indicated in all types of infiltrating growths situated in such a position as to make resection feasible. Hyman is convinced that results of resection in suitable cases are so much better than suprapubic radon treatment that he considers it the operation of choice.

End Results:—In sixty-seven cases there was 25 per cent mortality. He was unable to follow three cases. Of forty-six patients followed, one patient was living sixteen years. Fifteen cases were well five years or more and nine were cured for periods of less than five years; of the whole series with seventeen deaths, thirty-four were apparently cured. Recurrences were present in 32 per cent of cases and eight cases died later, making twenty-three failures.

Total cystectomy and partial prostatectomy was done in cases with extensive involvement of the trigone by an infiltrating tumor, compromising both ureters so that they had to be sacrificed; in infiltrating growths at the neck of the bladder involving the sphincter area; when there was invasion of the prostate from an infiltrating growth at the neck of the bladder; extensive carcinoma of bladder; and multiple carcinoma too extensive for radon implantation.

End Results:—In nineteen cases in which total cystectomy with cutaneous ureterostomy was performed there was an operative mortality of 21 per cent. Of those cases surviving operation, five are alive for periods of from five to nine years. Of the remaining nine cases, seven were done recently, and two were apparently well.

II. RADICAL OPERATION FOR TERATOMA OF THE TESTIS. FRANK HINMAN.

A radical operation like castration, if done at all, must be done early. When metastases are present the operation is impractical.

The dissection of lymphatic areas is much facilitated by a complete and thorough retroperitoneal exposure.

End results:

	Group I Patients without Metastases		Group II Patients with Metastases	
Treatment	Operation Radical	Castration	and Irradiation	
Number of patients	14	11	29	
Dead	3	3	20	
After 4 years	None		1	2
Living	11	8	9	
Prognosis 1 (good) ...	10		1	None
Prognosis 2 (fair) ..	None		4	4
Prognosis 3 (poor) ...	1		3	5
Over 4 years	4 (1)		1 (2)	1 (2)

III. NEPHRECTOMY AND NEPHRO-URETERECTOMY FOR MALIGNANT TUMORS OF THE KIDNEY. WALTMAN WALTERS, AND WILLIAM F. BRAASCH.

Malignant tumors of the kidney are of two types: (1) those which primarily involve the cortical or secreting substance of the kidney, including adenocarcinomata, sarcomata, Wilms' tumors and (2) those which have their origin in the renal pelvis, such as papillary squamous cell epitheliomata. Because papillary squamous cell epithelioma metastasizes along the ureter, when such a lesion is present the ureter as well as the kidney should be removed.

Posterior lumbar incision is used in exposing the kidney, sometimes removing the twelfth rib. Occasionally, if the kidney tumor is very large, the anterior incision is made, doing a transperitoneal nephrectomy.

Of prime importance in postoperative care is the maintenance of an adequate intake of fluid, control of gastrointestinal stasis, and determination of renal function.

Results of nephrectomy for malignant renal neoplasm:—At the Mayo Clinic between the years 1901 and 1927, renal tumors were removed from 256 patients and 110 or 42 per cent lived five years or more after operation. Sixty-eight of these 110 patients have lived from five to ten years. Twenty-two have lived ten years or more, sixteen have lived from fifteen to twenty years, and five have lived more than twenty years.

In grading malignant tumors of the kidney, Broders' index of malignancy was used. The best results from nephrectomy were in grade I, then grade II, and so on, those having grade IV malignant tumors dying within the first five years following operation.

The most common site of metastasis of renal neoplasm is the lungs; therefore, a röntgenogram of the chest should always be taken before operation. If metastasis is found, nephrectomy is a questionable procedure.

Pre-operative and postoperative irradiation may be of considerable value as an adjunct to surgical treatment.

IV. Radical Cure of Carcinoma of the Prostate. Hugh H. Young.

Radical operation for cancer of the prostate is done in those cases in which the cancer has not invaded the tissues beyond the reach of radical surgery. He has completed a series of fifty cases.

The entire prostate with its capsule, the entire urethra, with a portion of the membranous uretha, a cuff of bladder, both seminal vesicles, and the ampullae of the vasa are removed in one piece. This radical operation is clearly and beautifully described in the article, in which he explains twenty-six different steps and concludes with a paragraph on postoperative care.

Convalescence is usually more simple than after the ordinary operation for benign prostatic hypertrophy, because the suturing is complete, and no prostatic cavities remain to be healed.

Results:—8 per cent mortality in fifty cases. Of thirty-three patients operated on over five years ago, sixteen or nearly 50 per cent lived or are living five years without recurrence; thirteen patients lived over seven years without recurrence; nine died of old age or of intercurrent disease without having recurrences; twenty-three are still alive without recurrences; eleven died with recurrences and one is living with recurrence. Young concludes with this statement: "If general practitioners could be taught to make rectal examinations much more frequently, and be suspicious of every markedly indurated prostate, even when only a small nodule is present, many patients would be brought to early radical operation and ultimate cure."

V. Cystoscopic Control by Radium of Bladder Cancer. Benjamin S. Barringer.

Barringer reports thirty-six cases from Memorial Hospital with bladder cancers of grade II, III and IV, which have been controlled with radium applied through the cystoscope.

	Length of Control						
Less than 1 yr.	1-2 yrs.	2-3 yrs.	3-4 yrs.	4-5 yrs.	5-10 yrs.	10-15 yrs.	15-20 yrs.
6	2	2	1	5	13	6	1

Twenty-nine of the papillary type and seven of the infiltrating type have been destroyed. Tumors treated cystoscopically must be relatively small, not more than two or at most three cm. across. Implantation in men is usually done under low spinal anesthesia, while in women this has not been found necessary. The tumor of loose papillary structure will not retain the radon seeds. In these cases Barringer uses unscreened radium in a cystoscopic holder which is held up against the tumor for varying lengths of time.

Brief case records of the thirty-six cases are given and Barringer summarizes by stating that there is no mortality to the procedure and, if the seeds are properly placed, there is no danger of penetrating the bladder with the radon bearing needle.

VI. Cancer of the Penis: Surgical Treatment. Meredith F. Campbell.

Cancer of the penis falls into four main clinical groups:—

1. Superficial growths less than 2 cm. in diameter and without palpable metastases.
2. Superficial growths apparently with metastases.
3. Locally penetrating growths. Even though not distinctly palpable, metastases may be assumed to exist in half of these cases.
4. Hopelessly advanced growths with metastases.

Group I is usually cured by irradiation therapy. Groups II and III should be treated with surgery, and in group IV operation should not be done. No one operation fits all cases; therefore, Campbell outlines the following procedures:

(1) Partial or conservative operation without, and (2) with excision of the regional lymphatics; (3) extirpation with resection of the lymphatics. He explains clearly the steps to be taken in these operations.

Dilation of the new urethral orifice with sounds is the chief requisite in the proper postoperative treatment. Free urinary drainage must be maintained in such a manner as to prevent soiling of the wounds. When metastases are proved to exist, the regional lymphatics should be excised *en masse*.

Cholecystic Disease: Comparison of Clinical with Cholecystographic Data Concerning Five Hundred Patients Not Operated On

B. R. Kirklin and Thomas W. Blake, Rochester, Minn. (*Journal A. M. A.*, Nov. 2, 1935), believe that the reliability of cholecystographic data relative to patients whose symptoms do not warrant surgical intervention cannot be determined with finality except by subjecting a large number of such patients to cholecystectomy, and that is unthinkable. Even the most critical comparison of clinical with cholecystographic observations relative to patients not operated on cannot be decisive, for there are wide variances in the individual experience of clinicians. Nevertheless, such comparison is the sole available method of approach, and they have attempted to make an analysis of this sort. The material comprised the records of 500 patients examined both clinically and cholecyystographically at the clinic but not operated on. In 200 of the cases no shadow of dye had been discernible, and a report of nonfunctioning gallbladder had been made; in 100 the shadow of dye had been only faintly discernible, and the report of poorly functioning gallbladder had been made; in 200 the cholecystographic response had been normal. In 185 of the 200 cases in which there were nonfunctioning gallbladders, according to the cholecystograms, a clinical diagnosis of cholecystic disease was made. Among the fifteen exceptions, a questionable diagnosis of cholecystic disease was made in one instance, the cholecystographic report of nonfunctioning gallbladder was recorded without comment in two, and disease of the biliary tract was not mentioned in twelve. In eighty-one of the cases in which there were poorly functioning gallbladders, a clinical diagnosis of cholecystic disease was made. Among the nineteen exceptions were one case in which one of the consultants held the opinion that the gallbladder was at fault and should be removed, five in which there were various degrees of doubt as to the presence of cholecystitis, three in which the cholecystographic report was cited without comment, and ten in which disease of the biliary tract was not mentioned. In 188 of the normally functioning gallbladders, disease of the biliary tract was not mentioned by the clinician in the record. Among the twelve exceptions, the clinician made a definite diagnosis of cholecystic disease in three cases and noted the possibility that such disease might be present in nine. Thus the results of the study do not confirm any mistrust that the test of function by cholecystography, as a basis for judgment whether the gallbladder is probably diseased or normal, is less reliable in cases in which operation is not performed than in cases in which it is performed. On the contrary, in 908 per cent of these 500 cases the cholecystographic report was in consonance with the final clinical opinion, and this closely approximates the accuracy of cholecystography as proved by operation.

Proceedings, in Abstract, of the Annual Meeting of the Society of Plastic and Reconstructive Surgery, at Detroit, Michigan, October, 1935

Tannic Acid and Silver Nitrate: A Superior Treatment of Burns, Adalbert G. Bettman, M.D., F.A.C.S., Portland, Oregon

The points of superiority over other treatments are:

1. The saving of lives that would be lost through the slower method of tanning.
2. The immediate stopping of the loss of body fluids, thereby preventing the consequent concentration of the blood.
3. The immediate prevention or very definite minimizing of shock.
4. The immediate prevention of the absorption of toxic products.
5. The prevention of infection by the short period of application of moisture and the early drying of the tanned tissues.
6. The saving of the kidneys and other organs from the effects of fluid concentration, the absorption of toxins, and infection.
7. The greater comfort of the patient.
8. The patient is safely carried past the first twenty-four hours, which is the most critical period following a serious burn.
9. The patient avoids the second critical period, that of infection and late absorption of toxic products.
10. The simplification of the nursing problem, especially in the first twenty-four hours.
11. The prevention of further breaking down of tissues which results from long application of wet dressings.
12. The prevention of chilling, which also results from the long application of cold, wet dressings.
13. The formation of a thin, flexible coagulum.
14. The speedy healing of the burned areas with a shortened period of hospitalization.
15. The prevention or minimizing of heavy contracting scars by early rapid healing in the absence of infection.
16. The lessening of the amount of skin grafting and secondary corrective surgery.

Tannic Acid Treatment of Burns*, Grover C. Penberthy, M.D., Detroit, Michigan

The tannic acid method of treatment, spraying with a freshly prepared 5% solution every fifteen minutes for 4 to 6 hours, combined with the light tent, is effective and helps to simplify the treatment of a condition that can tax the patience, time and resources of the attending physician to the utmost.

The forcing of fluids and giving saline, either subcutaneously or intravenously, and blood transfusion are necessary to carry the patient through the acute period of toxemia.

* From the Surgical Service, Children's Hospital of Michigan.

Surgical Treatment of the Different Varieties of Cleft Palate, G. M. Dorrance, M.D., Philadelphia, Pa.

Why do we have operative and functional failures in cleft palate operations? First, because operations are performed when the patients are too young. Our follow-up records showed the child spoke just as distinctly if operated upon later. The ability to obtain normal articulation depends upon proper oropharyngeal closure. Second, because operations are completed in one stage instead of two or three stages. The advantages of raising the flap once or twice is that it thickens and the collateral circulation is easily established. Third, because the surgeon employs the same type of operations on all patients when in my opinion he should select the appropriate type for each deformity. Fourth, because attempts are made to close clefts which never should have been closed but should wear obturators.

Cartilage Transplants, H. O. Bames, M.D., Los Angeles, California

In reconstruction of facial form and contour, the costal cartilage transplant is the one most likely to meet the requirements of a supportive as well as a filling tissue. It is most accessibly obtained in adaptable form from the 7th, 8th or 9th rib.

Requirements for surgical success are: the use of autogenous material only, not too old and brittle. Imbedding in a dry bed, preferably only large enough to accommodate the graft; implanting under the periosteum or as close upon the bone as possible; the avoidance of too much strain and tension in the surrounding soft tissues, lest their breaking down expose the graft and thus lead to its partial or complete disintegration; the presence or absence of perichondrium seems to be immaterial.

Summary of Comparative Value of Cartilage and Bone Transplants in Rhinoplasty, Joseph Kelly, M.D., New York, N. Y.

This paper summarizes very briefly the question of transplants and implants and defends the cartilage graft as being the best known substance for transplantation. The bone graft is considered as being suitable material only in the hands of men long experienced with the use of this substance. Osteo-periosteal graft is mentioned with the belief that this type of graft will be much used in the future. Combined grafts are not considered sufficiently advantageous to warrant the risk of complications. Exogenous materials are considered only in the way of comparison.

Transplantation of Human Cornea: Its Present Status, John M. Wheeler, M.D., Ramon Castroviejo, M.D., New York, N. Y.

"Homo" and "auto" keratoplasty can successfully be accomplished when a suitable technic is followed. When the operation is performed on favorable eyes a high percentage of success may be expected. In those eyes in which the anterior segment is severely affected the results cannot be expected to be so brilliant, but a definite improvement can be obtained when a suitable technic is used. Inasmuch as these eyes have little or nothing to lose and may be considerably improved, operation is justified.

Plastic Repair of Contractures of the Mouth, Chin and Neck, Motion Picture, C. R. Straatsma, M.D., New York, N. Y.

This film shows in full detail a method of plastic repair for contractures of the mouth, chin, and neck following a burn.

Under local anesthesia, a series of operative procedures was performed, the first step being the migrating of a previously prepared tubed pedicle, 14 inches long by 3½ inches wide, from the back to the neck. This was followed by the excision of the scar tissue from the neck and the utilization of the tube to cover the defect. There were seven steps at intervals over a period of five months.

The release of the contractures brought about a satisfactory restoration of function.

(Concluded on page 158)

Contemporary Progress

RHINOLARYNGOLOGY

Treatment of Chronic Sinus Infections With Undenatured Bacterial Antigens

F. C. Kracaw (*Laryngoscope*, 46:26-31, January, 1936) reports the use of undenatured bacterial antigens in the treatment of chronic sinusitis. These bacterial antigens are prepared according to the technique described by Krueger (1933) by physically disrupting the living cells and filtering through acetic colloidal membranes, from organisms isolated from the nasal tract. The antigen is applied to the sinuses by the Proetz displacement technique, with direct instillation into the antra if necessary. The antigen is also given intradermally and subcutaneously for general immunization; at each treatment a small intradermal dose is given and the subcutaneous dose is gradually increased until there is definite evidence of favorable response, then kept at this level. Injections are given three times a week for an average of fifteen weeks, then once a week for six weeks and once every two weeks for four to five doses, and finally once a month for six months to a year. As the local treatment to the sinuses is carried out, the discharge first increases and becomes purulent, and subsequently diminishes in quantity and becomes mucopurulent. Treatment by this method is indicated in allergic rhinitis of probable bacterial origin, chronic ethmoiditis and sphenoiditis, and chronic infection of the frontal sinuses. In the latter correction of concomitant infection in the other paranasal sinuses usually favors drainage from the frontal sinuses and permits them to return to normal. The author previously reported 45 cases treated by this method, with 30 cured and 13 definitely improved. A year or more after completion of treatment 28 of those considered cured have remained free from symptoms; and all the 13 improved have maintained their improvement. In a second series of 62 cases treated, there are 52 cured or practically cured, and 8 who show definite improvement of lesser degree, with 2 that failed to respond.

COMMENT

Like all suggested new treatment of sinus conditions, Kracaw has brought out an idea which seems to be worthy of consideration when one reviews his figures, which show a so-called cure in so many cases. However, he does not suggest the severity of the infection. It is our belief that too much stress is laid on sinus conditions today and that many of them can be definitely cured by attention being paid to proper hygiene of the nose and throat and upbuilding of the general system. However, any new method which will keep specialists from visualizing an operation as soon as a pathology is apparent is well worthy of a trial.

H. H.

Obliterative Frontal Sinusitis

S. R. Skillern (*Archives of Otolaryngology*, 23:267-283, March, 1936) reports 5 cases of obliterative frontal sinusitis in which the frontal sinus on one side was partially or completely obliterated by osteanagenesis (the growth of new bone). The stimulus for this new growth of bone is the infection and slight traumatism from operative procedures. The author is of the opinion that if the cancellous bone is exposed to the infecting organisms, osteomyelitis may develop, but if the compact bone is exposed and the traumatism is slight, there is new growth of bone. In all cases of obliterative frontal sinusitis observed, there was some prior intranasal instrumentation. The symptoms were a sense of weight with dull pain over the entire frontal area, and occasionally facial neuralgia and orbital symptoms associated with toxemia affecting chiefly the nervous and gastro-intestinal tracts; the discharge was tenacious mucus or mucopus. There was tenderness under the supra-orbital ridge on the affected side; and the sinus was dark on transillumination. The radiogram showed the outline of one frontal sinus ending abruptly in the midline —a finding usually interpreted by the roentgenologist as "failure of development or absence of one frontal sinus." At operation this interpretation of the film was found to be an error. Complete relief from symptoms was obtained in each case by resection of the entire anterior wall of the affected sinus above the superciliary ridge and the thorough removal of all tissues until the posterior wall was exposed. While the new bone filling the sinus for the most part was hard and compact, it contained "pockets of infection," which were evidently the source of the toxemia by absorption through the vascular system of the bone itself.

COMMENT

It is of extreme importance to study x-ray films carefully, and particularly so in cases where the patient complains of pain over the frontal sinus. If the sinus is obliterated, as suggested by Skillern, one must eliminate every factor before resorting to an operative procedure. The pain may be due to a plain supra-orbital neuralgia or may be caused by a toxic condition in the gastro-intestinal tract. Although Skillern's cases were evident after intranasal procedures on the frontal sinuses, we know of other cases in which there has been no instrumentation. The unfortunate part of the author's conclusion is that he does not suggest that an osteomyelitis of the internal plate may have occurred. In such cases, opening up the obliterated sinus may result in meningitis and death.

H. H.

Improved Intranasal Packing

R. W. Stevens (*Archives of Otolaryngology*, 23:232-235, February, 1936) notes that the usual methods of packing the nose after surgical operations or for the control of bleeding have several disadvantages, chief among which are: The difficulty of introducing the packing through the small nostril, the uneven distribution of pressure, difficulty in removing the packing without hemorrhage, trauma and pain, and the congestion which blocks the nose. The author has devised a pneumatic rubber pack, which is collapsed for introduction into the nose, and inflated after it is in place. The pack is made of thin rubber, molded so as to fit the gross contour of the nasal fossa; each pack is used in the corresponding side of the nose. A breathing tube is inlaid along the bottom of the pack. This rubber pack is sterilized by autoclaving in the same way as rubber gloves, and dipped into procaine hydrochloride or sterile glycerin before use. It is collapsed by aspirating the air by means of a No. 26 caliber needle inserted through the cork; then rolled up and introduced by means of the ordinary bayonet forceps. When in the nose, it is unrolled and placed in the proper position, and then inflated by the injection of air until the desired pressure and tension are obtained; the amount of air injected usually amounts to 15 c.c. If both sides of the nose are to be packed, the corresponding pack is placed in the opposite side in a

similar manner. These packs are easily withdrawn after removing the air by aspiration. The packs have been used by the author in 38 cases, chiefly surgical, including 23 cases of submucous resection. There was a definite improvement in the patient's comfort as compared with other methods of packing; no postoperative oozing of blood or severe hemorrhage; removal of the pack without pain, trauma or hemorrhage; shortening of the period of postoperative nasal congestion.

COMMENT

This seems to be a sensible and simple method of packing the nose, but it is hardly necessary in the majority of cases. We are decidedly against the indiscriminate packing of the nose. Most packings tend to increase the venous engorgement in the nose and increase the bleeding instead of diminishing it. A procedure which works in most cases is the following: Wash out both nasal chambers with a very hot saline solution to get rid of all clots. A small clot, attached to a vessel, will give continuous oozing the same as in a tonsil cavity. If there is still bleeding, pack the nose very gently with flattened pieces of gauze, one on top of the other. If bleeding still goes on, remove the packing and wash out again with the saline solution, adding a small amount of suprarenal extract. If the bleeding area can be seen, it can be cauterized with trichloracetic acid or the electric cautery needle. If bleeding still continues one had better look elsewhere for trouble. A transfusion may be necessary or even a ligation of the carotid artery.

H. H.

The Sugar Treatment of Ozena

Fritz Sturm (*Archiv für Ohren- Nasen- und Kehlkopfheilkunde.* 140:207-208, Jan 3, 1936) reports the treatment of ozena and atrophic rhinitis by the local application of dextrose in a chemically pure form. For two or three treatments, the dextrose in powder form was insufflated into the nose; then the patient was given dextrose-lanolin salve for self application, and occasionally the dextrose powder for insufflation. Of the 25 cases treated, 12 were true ozena, 7 of them of a severe type; 11 were cases of atrophic rhinitis without fetor; and 2 rhinitis sicca. In most cases there was rapid improvement. All the patients with atrophic rhinitis were freed from symptoms by using one or two daily applications of the salve. The cases of rhinitis sicca also showed marked improvement. All but one of the cases of ozena were definitely improved, and in this case the patient did not employ self-treatment constantly and thoroughly. In all the other cases the crusting and fetor were relieved; in the more severe cases there was some persistent secretion, but this had no odor. In some cases the associated pharyngitis was markedly relieved, although it persisted to some extent. Some patients reported relief of headache; but in no case was there improvement of the sense of smell. The results obtained with so cheap and simple a method of treatment were very satisfactory in comparison with other methods.

COMMENT

Any suggested new treatment, particularly when it is as simple as this, is worthy of a trial. Ozena is a baffling condition, of extreme annoyance to the patient and anyone around him. Our best results have been obtained with radium, a treatment which is very expensive and long drawn out. It does not always relieve or cure. As the majority of these patients are continually looking for something new to try, we shall take pleasure in recommending this suggested treatment and giving it a trial. Is it possible that the blood sugar is lower than it should be in some of these cases?

H. H.

Cytologic Examination of Nasal Smears

D. M. Cowie and B. Jimenez (*Archives of Internal Medicine*, 57:85-93, January, 1936) report a cytological study of the nasal smears in persons with a history of sensitization in comparison with non-sensitized persons. It was found that if sensitized persons have a nasal discharge there is a definite increase in the eosinophil cells in the nasal smear; an eosinophil count of 20 to 25 per cent. in the smear may be considered an indication that the patient is allergic. Eosinophilia occurs in the nasal smears of persons sensitized to other substances than pollens, as well as in pollen sensitization. If epidermal sensitization is associated with pollen sensitization, the percentage of eosinophiles is higher than with pollen allergy alone It was also found that if an allergic person develops an infectious cold, there is a change in the cytology of the nasal smear, and the percentage of eosinophiles falls definitely below that ordinarily found in an allergic person. No definite relationship was found between the eosinophile percentage in the blood count and in the nasal smear. The eosinophil count of the nasal smear is of definite value in determining whether any nasal condition has an allergic base, and whether or not a prolonged sensitization study is indicated.

COMMENT

Like all research work, this study is commendable from a scientific angle. But it tells us nothing new. For some time we have known that there is an increase of eosinophiles in the nasal secretions and the blood in allergic cases.

H. H.

Treatment of Lymphoid Hypertrophies and Infections of the Pharynx and Nasopharynx by Irradiation

W. W. Eagle and R. J. Reeves (*Southern Medical Journal*, 29:156-162, February, 1936) do not advocate irradiation therapy of infected and enlarged tonsils, but of "non-encapsulated lymphoid tissue" of the pharynx and nasopharynx. They report 143 cases of this type treated by Roentgen-ray irradiation, using 130 kilovolts, 5 ma., 25 cm. distance and 3 mm. aluminum filter; the erythema dose with these factors is 375 roentgen units. The dosage first used was 100 r over each side of the neck at weekly intervals for four to six treatments in a series; subsequently treatments at two-week intervals with a dosage of 150 r were employed. In the cases treated, with one exception, the tonsils had been previously removed; they showed lymphoid tissue scattered over the pharynx and nasopharynx with evidence of infection; and had frequent or almost constant sore throats; and in some instances frequent head colds, post-nasal or pharyngeal discharge, enlarged or tender cervical nodes, impaired hearing, or hoarseness. A few patients had systemic disease, such as nephritis or arthritis. Of the 143 cases treated, 67 have been followed up; of these 47, or 70 per cent., state that the results were good; and 16 that the results were "questionable," but several of them reported satisfactory improvement in throat symptoms. In 4 cases no improvement was obtained.

COMMENT

For some years past we have advocated this method of treatment, not merely for lymphoid hypertrophies which are observable, but in other cases in which definite pathology can be found in the nasopharynx which results in stenosis of the Eustachian tube and deafness. The worst cases which come to our notice are those patients who have a chronic irritating cough, particularly during the winter. The pharynx appears congested and a few lymphoid follicles may be seen. Examination with the pharyngoscope or nasopharyngoscope shows a nasopharynx with increased and hypertrophied lymphoid follicles. No topical treatment does any good. A change of climate will work wonders. But irradiation is of the greatest value, particularly in young children.

H. H.

OTOLOGY

Deafness Diagnosis Based on Functional Testing

C. M. Brown (*New York State Journal of Medicine*, 36:109-113, Jan. 15, 1936) is of the opinion that the audiometer is of value to determine the quantitative hearing, but it cannot take the place of tuning forks in functional testing for determining what part of the hearing apparatus is at fault. In the use of tuning forks it is important that the forks be accurately constructed, and that the testing be done in quiet surroundings, and if possible in a soundproof room or cabinet. In testing with the forks, the pa-

tient's eyes should be closed; for bone conduction tests the pressure should be as nearly equal as possible at all times. And for the air conduction tests the forks should be suspended at the same distance from the auditory canal for every test. The length of time the vibrations are heard is important, especially in the Rinne test, and should be recorded. For ordinary office practice, two small A1 forks, on small C4, one large C1 and a large A fork are sufficient. The author uses a large A fork for the Schwabach, Gellé, Weber and Politzer tests and a small A1 fork for the Rinne and Stenger tests. The small A1 fork of the Bezold Edelman series (453 d.v.) should be heard thirty seconds longer by air conduction than by bone conduction. If this fork is not heard at all it indicates a badly injured hearing apparatus—or at least a gap for this note in the inner ear; if heard well, it indicates hearing for conversational tones is normal or near normal. The most important tests for determining the location of the hearing fault are the Rinne, Weber and Schwabach tests combined with a test for perception of the high and the low notes.

COMMENT

Regardless of the fact that tuning forks have a necessary value in making functional tests for hearing, the audiometer is of decided necessity in determining the degree of deafness. Its greatest value is in the opportunity of recording a definite course of hearing which can be compared with tests made by other otologists. Functional testing is a science by itself and means absolutely nothing unless it is undertaken by a person who is particularly adapted for that kind of work. Most of the results are misleading because, as the writer says, the testing should be done in quiet surroundings, and if possible in a sound-proof room or cabinet.

H. H.

Intra-Uterine and Neonatal Otitis

F. A. Hemsath (*Archives of Otolaryngology*, 23:78-92, January, 1936) reports 7 cases in which otitis media was found at autopsy in stillborn infants or those dying shortly after birth. These cases were observed at the New York Lying-In Hospital from 1930 to 1932. Of the 7 infants, 2 were stillborn; the others died at periods varying from eight hours to twenty-two days after birth. In the stillborn infants, there was a foreign body exudate, with foreign body reaction, in the middle ear caused by the presence of the solid constituents of amniotic fluid. In 3 cases there was an acute purulent otitis media following premature rupture of the amniotic sac, with associated aspiration pneumonia in 2 cases. In the sixth case (an infant dying six days after birth) there was unilateral acute purulent otitis media, probably due to postnatal infection, which was the focus for bilateral labyrinthitis and purulent meningitis. In the seventh case, in which death occurred twenty-two days after birth, there was a metastatic agonal infection of the middle ear in the presence of an organizing exudate which was originally either inflammatory or due to foreign body reaction.

COMMENT

A very interesting observation.

H. H.

Auditory Nerve Involvement After Tetanus Antitoxin

R. D. Cutter of San Francisco (*Journal of the American Medical Association*, 106:1006-1007, March 21, 1936) reports a case in which involvement of the auditory nerve followed the administration of tetanus antitoxin. The patient was a boy fourteen years of age, who had been given a total of 125,000 units of tetanus antitoxin within forty-eight hours, because of symptoms of tetanus developing three weeks after he had stepped on a rusty nail. Five days later he was given an additional 1,500 units of the serum intramuscularly. This caused a severe local reaction and fever and later an urticarial rash; this reaction was attended by increasing deafness and noises in the ears, and also by double vision. The right audiogram showed 40 per cent. loss of hearing for speech on the right side and 50 per cent. loss on the left; although the fever and local reaction subsided, the deafness became worse in the next few days, with 61 per cent. loss of hearing on the right side and 69 per cent. on the left. In a little over a month, however, deafness and tinnitus had both disappeared. Audiograms showed only a slight loss of hearing persisting. The occurrence of marked deafness and tinnitus during a serum reaction and subsequent recovery of almost normal hearing indicates a nerve deafness due to the administration of tetanus antitoxin. A careful search of the literature showed no other case of involvement of the eighth nerve following the administration of tetanus antitoxin.

COMMENT

That sudden deafness can arise from some medicament is not a new thought, although unusual. Such deafness may occur after taking large doses of quinine and other drugs. The harm that is done from a toxic invasion of the auditory nerve as a rule cannot be overcome. In the case cited, one must assume that an allergic reaction took place from the serum injected. Such a reaction may occur after the injection of diphtheria antitoxin. So that it is only fair to assume that an edema of the auditory nerve took place at the same time the urticarial rash appeared.

H. H.

Primary Skin Graft in Modified Radical Mastoidectomy

G. E. Shambaugh, Jr. (*Archives of Otolaryngology*, 23: 222-228, February, 1936) notes that the Bondy modification of radical mastoidectomy is indicated in cases of cholesteatoma in which perforation is limited to Shrapnell's membrane—"genuine cholesteatoma" according to Witmaack's classification. One case is reported in which this operation was done, but granulation continued to form for over two years in spite of repeated removal and treatment with silver nitrate, etc. In 2 cases in which the cholesteatoma affected the ear with the better hearing, after the failure of conservative treatment to relieve the condition, the Bondy modification of radical mastoidectomy was done, combined with the application of a primary skin graft; a Thiersch half-thickness skin graft was employed, applied with the paraffin basket mold of Mosher. In both cases, the cavity was completely healed and epitheliated in twenty-five to thirty-two days respectively. Hearing was not only preserved, but "appreciably improved" in the operated ear.

COMMENT

Although the majority of radical mastoid operations may be covered with a suitable skin graft at the time of operation, there are a certain number of cases in which denuded areas remain and in which positive healing will not take place. One feels that all radical mastoid operations must vary according to the anatomy found. In some cases very little posterior wall has to be removed; in other cases, a great deal has to be removed. The question of lining the cavity with a suitable membrane is of equal importance. One should use particular care to preserve the hearing as much as possible.

H. H.

Gradenigo's Syndrome and Petrositis

R. B. Lumsden (*Journal of Laryngology and Otology*, 51:150-159, March, 1936) reports that 5 cases of Gradenigo's syndrome have been observed at the Edinburgh Royal Infirmary since 1927; of these 3 recovered and 2 died. In addition the author has personally observed 4 other cases of which 2 recovered and 2 died. In these 9 cases the age of the patients varied from six to thirty-three years; 6 were males and 3 females. In 2 cases the syndrome developed before operation; one patient recovered and one died. In the former the abducens paresis had passed off sixteen days after operation. In the fatal case meningitis developed; at operation a deep extension of infected zygomatic cells was found. In the 7 cases in which the syndrome developed after operation, 4 recovered and 3 died. In one of the recovered cases, a second operation was done and a "gallery" of diseased cells was found extending forward toward the apex of the petrous; recovery from the paralysis was complete in six months. In another case the abducens paralysis occurred on the opposite side after operation at which thrombosis of the lateral sinus was found and the internal jugular vein ligated. In a third case that recovered, facial paralysis preceded operation and the onset of Gradenigo's syndrome after operation was attended by signs of labyrinth irritation. In the

3 fatal cases in which the syndrome developed after operation and in which death was due to meningitis, homolateral headache, accompanied by fever, was the first symptom noted; this was followed by abducens paralysis, developing in from one to thirteen days; in 2 cases the headache passed off and the temperature fell with the onset of the abducens paralysis, and in both improvement in the paralysis was noted before the terminal stage. No evidence was found in this series of cases of Gradenigo's syndrome that the prognosis is more favorable if the pain subsides before the paralysis develops; nor does the time of onset of the abducens paralysis after operation appear to influence the prognosis. In no case was an increase in discharge from the middle ear noted with the onset of the syndrome.

The author has collected 78 cases from recent literature which presented either a typical Gradenigo's syndrome, or other evidence of petrositis the presence of which was proved by X-ray, operation or postmortem examination. Of these 48 cases showed abducens paralysis. Gradenigo's syndrome, the author notes, is well known, but in the absence of the complete syndrome it is important to recognize evidence of petrositis. This possibility should be considered in any case that is unusually slow in clearing up after an adequate Schwartze operation; unilateral headache with slight rises of temperature occurring after operation are significant, and indicate the need for X-ray examination, especially by vertical projection, to determine whether or not a petrositis is present.

COMMENT

So much has been written about the infection of the petrous portion of the temporal bone, particularly during the past few years, that a review of a number of cases having a Gradenigo's syndrome is most timely. From practical experience certain facts should be impressed upon any physician coming in contact with such a case. In those cases in which an abducens paralysis and unilateral headache are present before operation, it is self evident that a mastoid infection is present with infection of the petrous cells. If the syndrome comes on after a simple mastoid operation, one may surmise that there is an infection deeper than the operated area. This may not be the fault of the operator. A second operation may be necessary or the patient may get well with watchful waiting only. A timely warning should be given here. Operation in the petrous pyramid is dangerous and often results in death. So it is wiser to be a little bit conservative until dangerous symptoms arise.

H. H.

Meningitis Due to Hemolytic Streptococcus of Otitic Origin

Mamon and Bolzinger (*Bulletin de l'Académie de médecine,* 115:163-166, Jan. 21, 1936) note that streptococcus meningitis is one of the most serious complications of suppurative otitis. They report one case in which meningitis developed in the course of an acute otitis media without definite signs of mastoiditis. Streptococci were isolated from the cerebrospinal fluid, and antistreptococcus serum of Vincent was given intravenously and intraspinally. As the symptoms of meningitis subsided and the cerebrospinal fluid became sterile, symptoms of acute mastoiditis developed. Mastoidectomy was done and the serum given intravenously only just before operation and for three days after operation. The intraspinal administration of the serum was not continued after the spinal fluid became sterile and the glucose content increased. The patient had a mild serum reaction of short duration, but made an excellent recovery. The authors note that this is the eighth case of streptococcus meningitis reported to be cured by the Vincent antistreptococcus serum, but none of the other cases were of otitic origin.

COMMENT

We should like to know more about Vincent's antistreptococcus serum for it has been our experience that sera do little good in cases of this kind. The mortality is extremely high so we are indeed surprised to note that eight patients recovered from meningitis when this serum was given. Meningitis of otitic origin is not uncommon and may take place even when the mastoid cells are not involved. Anatomical anomalies create dehiscences in the bone of the skull so that direct invasion from the ear takes place; or infection may follow along blood-vessel or lymphatic channels.

H. H.

GYNECOLOGY

Treatment of Pelvic Inflammation by Iontophoresis of Acetyl-Beta-Methylcholine-Chloride

A. Jacoby of the New York Post-Graduate Hospital (*American Journal of Obstetrics and Gynecology,* 31:93-100, January, 1936) notes that in the non-operative treatment of pelvic inflammation, the induction of pelvic hyperemia is the most important principle. Various methods have been used for this purpose. Recently a group of drugs has been available which produce vasodilatation and thus cause hyperemia; among such drugs are acetylcholine, histamine and acetyl-beta-methylcholine-chloride; the last seems to be the most effective. If this drug is applied locally by iontophoresis, there is some general reaction, but at the site of the local application the reaction is marked, with a rise in skin temperature; slight redness, faster rate in capillary flow, and a slight increase in white cell count. Acetyl-beta-methylcholine-chloride was used for the treatment of pelvic inflammation by introducing it through the vaginal vault by iontophoresis. Several thicknesses of gauze soaked in 20 c.c. of a 1 per cent. solution of the drug were introduced and carefully spread out against the entire vault of the vagina; a thin vaginal electrode with the active end wrapped in gauze and soaked in the 1 per cent. solution was placed firmly against the gauze pack; the negative pole is a flat dispersive pad, which is well moistened in warm water and placed on the lower abdomen. The current (galvanic) was turned on gradually up to 15 to 20 milliamperes for twenty to thirty minutes. Treatments were given every other day. If the general reaction—sweating, flushing and salivation—was too pronounced the treatment was interrupted and 1/150 gr. atropine sulphate given hypodermically. Of 10 patients treated by this method, 7 with extensive pelvic inflammation were completely cured; the exudates disappeared rapidly under treatment. In several cases, concomitant painful menstruation was relieved. The treatment had no effect on nabothian follicle cysts, small cystic degeneration of the ovaries or large ovarian cysts. The method seems to be superior to other methods of producing pelvic hyperemia because it has "a much more sustained physiologic action."

COMMENT

Conservative or non-operative treatment of pelvic inflammation is the method of choice. The production of pelvic hyperemia is the primary principle upon which this treatment is based. How such hyperemia is induced is a matter of preference. There are many methods; some are good, others not so good.

We have had a fairly extensive experience with the Elliott method and have had good results. Dr. Jacoby recommends the method of "iontophoresis of acetyl-beta-methylcholine-chloride," which seems quite satisfactory in his hands. Likewise other men prefer still other methods. Take your choice; all such methods have a real therapeutic value when intelligently used. The important point is "Be conservative in the treatment of pelvic infections."

H. B. M.

A New Method of Treating Endocervicitis and Erosions of the Cervix with Ammonium Silver Salts

L. S. Kritschewsky and E. Werbatus (*Monatsschrift für Geburtshülfe und Gynäkologie,* 101:346-355, March, 1936) report the treatment of endocervicitis and erosions of the cervix by the injection of an ammoniated solution of colloidal silver salts. The solution is freshly prepared in a concentration of 1:20,000. A vaginal douche with this preparation is first given. The solution is then injected into the cervical submucosa with a Luer syringe with a long needle; injections are made at four points—on the anterior, the posterior, and each lateral wall of

the cervix; some of the solution escapes into the cervical canal in the process; and this is carefully dried with sterile cotton after the injection is completed. Treatments are given once in five days. The authors report 66 cases treated by this method, most of which had lesions of long standing previously treated by other methods. Complete cure of the cervical lesions was obtained in 63 cases in periods varying from ten days to a month and a half. In the other cases some improvement was obtained with diminution of the vaginal discharge. In these cases there was an associated adnexal disease or parametritis. In 8 of the cases in which a cure of the cervical lesion was obtained an associated adnexal inflammation also showed definite improvement.

COMMENT

This is not a new method of treating endocervicitis. The only new phase of the procedure here is the ammonium silver salts. Many germicides have been used by the same method as advocated by the authors; notable amongst these is mercurochrome. The commentator never thought the rationale of this method was sound and consequently has never employed it. There are other more "certain and sane" methods that are less difficult to carry out.

H. B. M.

Endometrial Hyperplasia

L. C. Burch (*Surgery, Gynecology and Obstetrics, 62*: 373-376, Feb. 15, 1936) has found that 85 per cent. of the cases of uterine bleeding are due to one of five conditions: cancer, abortion, fibroid tumor, extra-uterine pregnancy or endocrine dysfunction. Endometrial hyperplasia is "fundamentally" an endocrine dysfunction, a disorder of the hypophyseal-ovarian relationship. In many cases the diagnosis of endometrial hyperplasia can be established only by exploration of the uterus with the curette or the biopsy instrument. Biopsy is of most importance in differentiating between cancer of the body of the uterus and hyperplasia, and for this purpose the biopsy punch instrument has been found of most value; in the last year 7 cases of unsuspected cancer of the body of the uterus have been diagnosed by means of this instrument in the author's clinic. Studies of cases of endometrial hyperplasia by means of biopsies taken every few days in the same patient show that the endometrium varies from time to time; at times it is definitely hyperplastic, and at other times similar to the normal interval endometrium; in the latter case the specimen might be considered normal from the standpoint of morphology alone, but if considered in relation to the menstrual history, and "with the knowledge that this type of endometrium is simply an early stage in the development of frank hyperplasia," the diagnosis is obvious. Various endocrine preparations have proved of value in the treatment of certain cases; their use should be based on a thorough study of the patient. Radiation with the X-ray or radium is also of value; the dosage may be either stimulative or depressive. In young subjects with "ovarian underfunctions" stimulative doses are indicated; at the time of the menopause, depressive doses. In the menopausal group curettage followed by radium has given good results. Hysterectomy is done only when all other measures fail. The author notes that the use of the biopsy instrument instead of the curette and of X-ray instead of radium "has eliminated the necessity of hospitalization for many of these patients."

E. C. Hamblen and W. L. Thomas (*Southern Medical Journal, 29*:269-281, March, 1936) report a study of 27 patients with endometrial hyperplasia treated by different methods. These patients were selected for special study because of the severity of their symptoms and because they had proven refractory to the usual conservative methods of treatment. Biopsy studies were made at frequent intervals. Ten patients were treated with a preparation of the anterior pituitary luteinizing principle of pregnancy urine (APL/PU); 6 with active gonadotropic extract of anterior lobe of pituitary (APH); 7 with mocassin venom; 2 with thyroid extract; and 2 with progestin. APL/PU was given subcutaneously in doses of 200 to 400 rat units three to four times daily for four to ten days. APH was given in doses of 20 to 30 rat units two to three times daily for four to eight days. The moccasin venom (1:3,000 dilution) was given in amounts of 0.2 to 0.4 c.c. twice a week for two to four months. Thyroid extract was given "as tolerated." Progestin was given in one case in 2/5 European rabbit unit doses once to three times daily for three days on two occasions; and in one case in 1 European rabbit dose daily for five days. Larger dosage could not be employed, nor more patients treated because of the limited supply of the preparation available. In the 7 patients given the moccasin venom bleeding was checked within seven to fourteen days, and in 6 of these cases a definite decrease in bleeding was noted before the fifth day. No further excessive bleeding occurred as long as treatment was continued; but 3 of these patients developed excessive uterine hemorrhages when treatment was stopped, necessitating hysterectomy in two cases. Of the 10 patients treated with APL/PU, only 2 showed decrease of the bleeding within five days; and in 2 of the 6 patients treated with APH, the flow stopped within five days. The patient receiving the larger dose of progestin stopped bleeding within four days. Histopathological studies of the endometria obtained by curettement or biopsy punch showed apparently a "more orderly and uniform arrangement of the interval glands" in a number of instances, but in only one specimen were glands of a progestational type observed. This was the case treated with the larger dose of progestin that showed a good clinical response. Further observations on the effect of progestin therapy on the endometrium are necessary before any conclusions can be drawn. It must be remembered also, the authors note, that progestin is thought to act directly on the endometrium, so that its effect might be only temporary, as the ovarian disease would still persist.

COMMENT

The author quite correctly states that 85% of all cases of uterine bleedings are due to one or more of five pathological lesions, viz., cancer, abortion, fibroid tumor, tubal pregnancy or endocrine dysfunction. Endometrial hyperplasia is basically an endocrine dysfunction—hypophyseal—ovarian. This being the case, diagnosis of the hyperplastic endometrium is most important. Furthermore, the differential diagnosis between this lesion and cancer of the body of the uterus is very important. The biopsy curet is the instrument with which this can most easily be done. This is an office procedure for the specialist or the practitioner who fully understands antisepsis and asepsis. It is easy enough to use but very dangerous on two counts (1) infection, and (2) puncture of uterus—either one of which might cause a fatality. We do not, therefore, agree with the author when he recommends its use without reservations.

As to treatment, we agree thoroughly with the methods advocated, viz., the various endocrine preparations (take your choice); irradiation by x-ray or radium, either in stimulative or depressive doses; menopause cases require thorough curettage and sufficient irradiation to complete "the change of life"; and finally hysterectomy when all other measures fail.

We have not performed hysterectomy for this lesion in "years and years" and believe the occasion will seldom arise where irradiation will not suffice; and, best of all, irradiation has no mortality and little, if any, morbidity. Truly an excellent therapeutic agent when properly used.

H. B. M.

Treatment of Dysmenorrhea by Alcohol Injection

A. A. Davis (*Lancet*, 180-82, Jan. 11, 1936) recommends the treatment of severe cases of dysmenorrhea by alcohol injection of the pelvic plexus "to block the nerve pathway to the uterus at its nearest accessible point." His technique is as follows: Evipan anesthesia is employed; the patient is placed in the lithotomy position; the cervix is retracted toward the left with the vulsella; and the right fornix further exposed with the aid of a flat lateral retractor. A long graduated Gasserian needle is passed horizontally through the vaginal mucosa at the side of the cervix for a distance of 0.5 cm., and the retractor withdrawn. The needle is passed backwards and outwards for about 1.5 cm. at an angle of 45° to both the sagittal and coronal planes, and guided by a finger in the rectum to a point 0.5 cm. from the rectal ampulla; it is then withdrawn 0.5 cm. and 1 c.c. of 85 per cent. alcohol injected, the needle point being kept slightly but continually moving. The procedure

is repeated on the other side. In 6 cases treated by this method, complete "and apparently permanent" relief was obtained. The author is of the opinion that the relief of pain is due to the interruption of three "separate and distinct impulses"—sensory and motor pathways, and irregular ovarian influences.

COMMENT

We have had no personal experience with this method of handling dysmenorrhea. Alcohol injections for other forms of severe neuralgic pain have not proven "so hot" and we cannot see why it should work so effectively in severe dysmenorrhea. However, if repeated frequently enough, it should give relief, but so will certain "pain killing" drugs. It would be more to the point to locate the cause of the dysmenorrhea and treat this rather than alleviate the pain by some complicated procedure.

H. B. M.

The Reduction of Mortality in Ectopic Gestation

C. A. Gordon (*American Journal of Obstetrics and Gynecology*, 31:280-287, February, 1936) states that statistics show that in the City of New York, nearly 6 per cent. of the maternal mortality is due to ectopic gestation; and an equally high percentage of deaths is reported elsewhere. The reduction of mortality depends primarily upon early diagnosis. In most fatal cases, symptoms were present for some time before operation was done. Symptoms may be ignored by the patient or overlooked or disregarded by the physician. The most suggestive symptoms are vaginal bleeding, usually moderate, with unilateral pelvic soreness or pain, sudden shoulder pain, syncope or momentary faintness; dysuria, dyschesia, slight jaundice, chill and vomiting occur, with repeated remissions. Absence of high temperature and the blood count aid in establishing the diagnosis, and also indicate the time of rupture. Abdominal rigidity is present, often unilateral, but is less marked than in acute appendicitis or salpingitis; the distention is typically below the umbilicus. Vaginal examination may not be necessary to establish the diagnosis, or advisable. All cases of ectopic gestation require operation, but if the patient's condition is serious, operation may be deferred until transfusion and other supportive treatment have been given to diminish the surgical risk. Transfusion is, the author believes, "easily our most valuable asset" in treating these cases. Operation should be done with "perfect technic" and only the simplest procedures employed in the presence of intraperitoneal blood.

COMMENT

The statement "There can be no intelligent treatment until a correct diagnosis is made" is just as true in ectopic gestation as elsewhere. The reduction of mortality in tubal pregnancy depends upon (1) the accuracy of the diagnosis; (2) the time of diagnosis, i.e., before rupture or after rupture; (3) the time when the diagnosis is made and the skill with which the operation is done; and (4) finally whether or not a blood transfusion is given.

We cannot agree with the author that "a vaginal examination may not be necessary to establish the diagnosis." Certainly no man can make a diagnosis of tubal pregnancy, although he may suspect the lesion, without making a vaginal examination. Personally, I would not think of doing a laparotomy for tubal pregnancy without making a vaginal examination, except perhaps in a very desperate case where to do so would greatly jeopardize the life of the patient. We heartily agree that transfusion (direct method) is "easily our most valuable asset" in the treatment of these cases.

H. B. M.

OBSTETRICS

Puerperal Infection Due to Anaerobic Streptococci

O. H. Schwartz and T. K. Brown (*American Journal of Obstetrics and Gynecology*, 31:379-387, March, 1936) report their experience with puerperal infection in their obstetric service at the hospitals of Washington University Medical School (St. Louis, Mo.) in the last ten years. It was found that anaerobic streptococci predominated in the uterine cultures in puerperal infections; streptococci of this type were also found in the vaginas of 40 per cent. of women at term, so that it is evident that the infection is endogenous and develops when conditions favor the growth of these organisms. In the ten years (July, 1924, to July, 1934), in 13,237 deliveries, there were 228 cases of puerperal infection, of which 31 were fatal. There were 216 cases of endometritis, 128 of which were due to anaerobic bacteria, and 22 cases of pelvic thrombophlebitis, 13 of which were due to anaerobic organisms. Of the 31 fatal cases 15 were due to anaerobic organisms; in 18 of these cases, infection had developed when the patient was admitted. From 1926 to January, 1930, vaginal instillations of mercurochrome, iodine and glycerin were used routinely in deliveries; since January, 1930, 1 per cent. neutral acriflavine in glycerin has been used, and the incidence of puerperal infection has reduced nearly one half. By this method, serious puerperal infections due to anaerobic organisms have been practically eliminated. Since 1930, there have been but 3 deaths due to puerperal infection in the authors' service, and of these 2 were due to *Staphylococcus albus*, and one to a mixed infection with a hemolytic streptococcus predominating.

COMMENT

Schottmuller in 1910 first called attention to anaerobic streptococci in the vagina, cervix and uterus of puerperal patients—a very important and far reaching piece of work that is only now beginning to be fully appreciated. Largely through the work of Schwarz and his co-workers we in America are awaking to the fact that unless we incubate these cultures, as well as those from the blood stream, under anaerobic conditions, we are very likely to obtain sterile cultures, yet our patient dies of sepsis. Therefore no culture from a case of puerperal infection—vaginal, cervical, uterine or blood stream—should be reported negative (in the presence of clinical symptoms) unless such culture has been grown both aerobically and anaerobically. Furthermore, the routine use of a vaginal antiseptic during labor and delivery practically eliminates serious puerperal sepsis due to anaerobic bacteria. There are many such germicidal agents on the market. Instillation of 4% mercurochrome has been our routine at the Methodist Episcopal Hospital of Brooklyn for 10 years and we think it is still as good as or better than all other methods. Try it. Ounces ½ every 8 hours during labor and free use of it during delivery—internally and externally.

H. B. M.

Has Premature Rupture of the Membranes an Influence on the Course of Labor?

E. Essen-Möller of Lund, Sweden (*Acta obstetrica et gynecologica Scandinavica*, 16:1, 1936) reports a study of 1,000 cases in which premature rupture of the membranes ocurred spontaneously. He found that such rupture of the membranes was more common in multiparas than in primaparas. After premature rupture of the membranes, the duration of labor was shorter than in deliveries in general for both primiparas and multiparas. Infection did not occur more frequently after premature rupture of the membranes than in other labors. Intervention was more frequently necessary after premature rupture of the membranes than in deliveries in general. The mortality of mothers and children was not higher in cases with premature rupture of the membranes than in other deliveries. In 300 cases in which the membranes were ruptured artificially, there was no increase in the incidence of infection as compared with other labors; but more cases required intervention, especially in primiparas; and both the maternal and fetal mortality was higher than in cases with spontaneous premature rupture of the membranes or in other deliveries. This was due to a great extent to the condition of the mother which necessitated artificial rupture and to prematurity of the child.

COMMENT

Premature rupture of the membranes undoubtedly hastens the labor in many cases and slows it up in others. Naturally, whether the patient is primiparous or multiparous is the most important determining factor. Intervention is always more frequent after premature rupture of membranes than in deliveries in general. Routine arti-

ficial premature rupture of the membranes is a questionable procedure and belongs, in my opinion, in the category of "meddlesome obstetrics." Don't do it!

H. B. M.

Abdominal Compression and Vaginal Tamponade in the Treatment of Abruptio Placentae

R. J. Heffernan (*New England Journal of Medicine and Surgery*, 214:370-373, Feb. 20, 1936) notes that abruptio placentae is "one of the major catastrophies of obstetrics"; the patient should be hospitalized as soon as this condition is diagnosed or even suspected. Cesarean section, the author believes, is not indicated in every case of abruptio placentae; it is the treatment of choice if the patient is at or near term with an undilated cervix, the baby living, and the symptoms severe; also in cases where the symptoms are so severe as to warrant a diagnosis of true uterine apoplexy with hemorrhagic infiltration of the myometrium; in the latter case hysterectomy should be done if the uterus will not contract. In other cases, if the symptoms are less marked, or occur several weeks before term, so that the baby is very premature, or dead; or if labor has started with some dilatation of the cervix; or if the patient is very toxic or anemic, the author advocates conservative treatment. This consists in the application of a firm Spanish windlass to the abdomen with a tight T-binder to the perineum, and tight vaginal packing with iodoform gauze or Voorhees' bag, supplemented by transfusion and other supportive treatment. The author reports 7 illustrative cases showing the value of this method of treatment. In all these cases, the patient made a good recovery; one was delivered of twins, both of which lived; and another patient was delivered of a child that lived but gained slowly. In 3 cases the child was stillborn; in one the fetus was macerated; and in one instance a premature living child was born, but died in three hours.

COMMENT

Abruptio placentae may be of a mild, moderate or severe type, the second and third constituting real obstetric catastrophies. There are three things to be done immediately in such cases—(1) hospitalization, (2) delivery as soon as feasible, and (3) transfusion. There are many methods of promoting labor and accomplishing delivery and those recommended by the authors are good. We like insertion of Voorhees' bag, as large as is possible to get through the cervix, with or without vaginal pack and a tight abdominal binder. If the patient is in active labor rupture of the membranes may be all that is necessary. Naturally, if the baby is alive, we may consider cesarean section, or, in the most severe cases, hysterectomy as well.

Transfusion is always, or nearly always, indicated and in our clinic is done without "fuss or fume." We are most enthusiastic over the transfusion of whole blood by the direct method and do not hesitate to transfuse any patient on the slightest indication.

H. B. M.

Correlation Between the Shape of the Female Pelvis and the Clinical Course of Labor

A. V. Pettit and his associates at the Stanford University School of Medicine (*Western Journal of Surgery*, 44:1-16, January, 1936) report a study of the shape of the pelvis (rather than linear measurements) as determined by roentgenography (pelviography) in relation to the course of labor. One hundred primigravidae admitted to the Obstetrical Clinic and 14 cases selected because of known dystocia were studied. The classification of Caldwell and Moloy was employed to designate the types of pelvis. In relation to the obstetrical significance of the various types it was found that: The necessity for operative intervention in the gynecoid type is low. In the android, anthropoid and platypelloid types, the necessity for intervention is increased, especially in the "pure" types, being as high as 40 per cent. in the android type. The single most unfavorable anatomical feature in producing difficult labors is a narrow subpubic angle. In some cases, especially if the pelvis is of the android type, difficult labor can be forecast by pelviography, when it is not indicated by ordinary methods of pelvic measurement.

COMMENT

The whole question of pelvic measurement is in a state of uncertainty. That the present inaccurate method of measuring the bony pelvis is fast becoming obsolete there is no question. That some x-ray method of pelvimetry will entirely supersede the "old method" there is no doubt. What method will it be? The answer to this question cannot be given today—perhaps not tomorrow—but before many years the answer will be forthcoming. "Accuracy" is a modern requirement, even in the obstetric art. As obstetricians, we have to recognize the absolute necessity for accuracy and are striving for "ways and means" and methods by which we may know the exact measurements of both pelvis and baby's head. When this is accomplished we shall have far less maternal and fetal morbidity and mortality. For the sake of our mothers and babies let us encourage this type of investigation.

H. B. M.

Calcium-Dextrose Therapy in the Late Toxemias of Pregnancy

A. A. Landry (*New Orleans Medical and Surgical Journal*, 88:567-572, March, 1936) states that in pregnancy there is "an extraordinary demand" on the calcium reserve of the mother for the needs of the growing fetus. In the late toxemias of pregnancy most investigators find a low blood calcium, and it should be remembered that there may be an actual calcium deficiency before the blood calcium becomes reduced, the calcium storage in various organs being depleted first. The blood sugar level is also unbalanced in the late toxemias of pregnancy. Thus in the treatment of these toxemias, the use of calcium and dextrose is indicated. Calcium can be supplied by diet and the administration of calcium salts, but to ensure the proper utilization of calcium, the administration of vitamin D or parathormone is also necessary. In the later months of pregnancy, the author advises that calcium and viosterol (vitamin D) should be given as a prophylactic. In patients showing minor symptoms, such as nervous imbalance, tingling in the hands and arms, feet and legs, and occasional cramps, the administration of calcium and viosterol gives ultimate relief and prevents the development of more serious complications. If mild symptoms of pre-eclamptic toxemia develop, the patient is placed on a diet low in fat and proteins, high in carbohydrates and calcium; a calcium salt (calcium gluconate or dicalcium phosphate) and viosterol (10 to 20 drops twice daily) are given. Sunshine baths are prescribed, and rest in bed if the symptoms are at all severe. As a rule improvement is marked in a week or ten days. In severe pre-eclamptic cases, and in cases with convulsions, parathormone is given in 20 unit doses hypodermically, with calcium and glucose given simultaneously. In eclamptic cases the calcium gluconate and dextrose are given intravenously. As soon as the patient can swallow the calcium gluconate is given by mouth with glucose lemonade. In 10 cases, 5 mild and 3 severe pre-eclamptic cases, and 2 cases of eclampsia, this treatment was used with excellent results. Of the 8 pre-eclamptics, all improved under this treatment and 7 were delivered at term; one was never rendered free from albumin, but was delivered of a living child at eight months. Both the eclamptic cases recovered: in one case the child was stillborn; in the other living twins were delivered by Cesarean section.

COMMENT

Prevention is the best "treatment" for the late toxemias of pregnancy. Prenatal care is the answer to the problem. However, we probably will always have to treat a certain number of pre-eclamptics and eclamptics because there will always be a few mothers who will not see a doctor until labor begins and likewise there will always be a few doctors—(thank Heaven! only a very few) who do not practice prenatal care. Therefore any therapy that is proven to be helpful or curative is of distinct value. Calcium-dextrose apparently is one such agent. It is most certainly worthy of trial in your next case.

H. B. M.

Economics

Department Editor: THOMAS A. MCGOLDRICK, M.D.

Governmental Aims for 1937

The following remarks, suggesting somewhat cryptically what seems to be in the minds of the powers that be at Washington with respect to medicine, appeared editorially in *The New York Times* of March 25, 1936:

"The populated areas that now lie under water will make immediate demands on the new Surgeon General's resourcefulness, knowledge, tact and authority. Later will come the problem of what is called socialized medicine. The President's social ideas being what they are, there is every reason to suppose that the selection of Dr. Parran was dictated by something more than considerations of administrative efficiency and professional competence. A social point of view in harmony with the Administration's was probably a requisite.

"Physicians as a class set their faces against socialized medicine. If we may judge from his past utterances they will have nothing to fear from Dr. Parran. "I am convinced that an integrated plan of public health, public medical service and private practice is preferable to health insurance," he said recently. By this he meant that the poor should receive all the official aid that can be rendered so far as diagnosis, medicaments and nursing service are concerned, but that the traditional relation of private physician and patient should not be disrupted. Here we have a constructive plan which, if carried out, should remove the major economic hazards of illness below the job insurance level. The man who can thus make it possible for the physician to give his impoverished patients the individual attention that means so much in sickness and at the same time assure them State assistance in lightening their heaviest financial cares displays a kind of social imagination which eminently qualifies him to meet the exigencies of the important office of Surgeon General."

We are not quite sure what these glittering generalities imply. We hope that no one is going to tell us later on that American panel physicians (!) are going to be free to carry on private practice, "as in England," for we know what a farce that set-up is in that country; there a panel physician is *practically* just that—a panel physician.

Taffy, or what? we ask with as much deference as we can command.

Proceedings of the Society of Plastic and Reconstructive Surgery

(Concluded from page 150)

Plastic Repair of Facial Defects Following Treatment for Cancer, Hayes E. Martin, M.D., New York, N. Y.

The successful treatment of cancer of the face and oral cavity often results in unavoidable anatomical defects or deformities. The defects causing marked discomfort or dysfunction are the most important from the practical standpoint. The defects of the face which cause marked discomfort and dysfunction are those which involve the walls of the oral cavity or the eyelids. Methods for the plastic repair of such defects which have been found useful in the Head and Neck Service of Memorial Hospital are described.

Restoration of Motion in Cases of Traumatic Facial Paralysis, George V. I. Brown, M.D., Milwaukee, Wis.

In all of these cases the reports of examinations by neurologists gave no hope of improvement. Nevertheless in some of them, as may be noted in the moving pictures, there has been complete restoration of natural facial movement and appearance.

These patients have been given mechanical vibration massage, hand massage, interrupted polysine generator treatment, and diathermia according to indications.

The purpose of the demonstration is to emphasize the simple fact that sometimes there is more possibility of reconstructive improvement in facial nerve affections than ordinarily would be expected, and that wherever there is even a possible question of doubt, the patient be given the benefit of that doubt before resorting to such operations as nerve anastomosis or similar methods even though in the end this treatment may be necessary.

Breast Deformities: Anatomical and Physiological Considerations in Plastic Repair, Jacques W. Maliniak, M.D., New York, N. Y.

In normal young girls at puberty the breast is a firm hemisphere, made up principally of fibro-elastic connective tissue, with comparatively little fatty or glandular structure. In pregnancy its volume and weight increase. The proportion of fibrous tissue diminishes as the glandular elements increase and the skin becomes distended. In anemic and asthenic girls ptosis is often present, independently of pregnancy, because of congenital weakness of the fixation apparatus and insufficient fibro-elastic tissue.

Fixation of the breast is provided by the skin through multiple fibrous prolongations (Cooper's Ligament) into the gland and by the retro-mammary fascia which provides a suspensory ligament attached to the clavicula. A marked increase in the weight of the breast, from any cause, overtaxes this apparatus and produces ptosis.

In mammary reconstruction the transposed gland should be firmly attached to the pectoral fascia to simulate normal fixation.

In reducing the gland the central portion should be left intact to preserve the blood supply to the nipple and to retain such function as exists in the main central ducts. In glandular hypertrophy of the breast, a rare condition bordering on malignancy, the entire breast gland should be removed.

As the blood supply comes through the deep portion of the gland, there is always risk of interfering with the blood supply when large quantities of fat and glandular tissue must be removed. The author employs a two stage procedure to minimize this risk. The nipple is transposed with most of the blood supply preserved and secondary resection is postponed until after the "take" of the central portion of the gland is complete.

Nonsuppurative Encephalitis: Report of Five Cases

R. J. SHAFER, Corning, N. Y. (*Journal A. M. A.*, Feb. 29, 1936), declares that most of the reported cases of nonsuppurative encephalitis have appeared during the last seven or eight years. It has been suggested by Neal and Appelbaum that the increased incidence of this condition may be due to a greater interest on the part of the physician. The condition occurs during or following the acute exanthematous diseases. No definite statement can be made concerning the etiology. Actual microbic invasion of the brain has not been found. Levaditi and Pette believe the condition is a degenerative process caused by viruses. Globus holds that it is an inflammatory reaction. Necropsy reports on the postinfectious forms of encephalitis show distinct gross and microscopic lesions of varying degrees.

Editorials

ANAMNESIS OF HARLOW BROOKS

Physician of the Old School
Scientist of the New School
Humanist
Good Companion

Today's Flagging Genius Misses a Hectic Stimulus

THE conquest of the infectious diseases carries some momentous implications. One of these implications has to do with tuberculosis.

As tuberculosis wanes, we see a notable change in the product of the creative mind.

If one studies the geniuses of the past who happened to be tuberculous, one can easily, many times, see the hectically stimulating influence of the specific toxins on the psychic and intellectual "switchboard."

No other disease with equally extensive lesions exalts a victim physically and psychically (*spes phthisica*). Other diseases, as they devastate tissues, devastate creative powers. Tuberculosis, paradoxically, prods a Shelley or a Keats into finer productivity.

In tuberculosis patients, says Fishberg (*Pulmonary Tuberculosis,* pp. 342-3, 1932), particularly young talented individuals, enormous intellectual activity of the creative kind is sometimes displayed. "Especially is this to be noted in those who are of the artistic temperament, or who have a talent for imaginative writing. They are in a constant state of nervous irritability, but despite the fact that it hurts their physical condition, they keep active and produce their best work." Fishberg gives a long list of tuberculosis-inspired celebrities.

"They astonish everybody," says Létulle (*Arch. gén. de méd.,* 2:258, 1900), "with their mental and intellectual activity; their memory, their quick judgment, their delicate reasoning powers are of incomparable amplitude." Productivity is least whenever the physical condition is improved.

The effect of this curious psychical excitation, including enhancement of output, has been studied carefully by many other fascinated medical observers, notably D. G. Macleod Munro, John B. Huber, and Ralph H. Major. Some of the subjects of it have recorded its influence upon them (Llewelyn Powys, for example), while Miss Jeannette Marks has discussed it at length with the keenest discernment.

What concerns us at this writing, however, is the thought that the present lack of the hectic stimulus of tuberculosis may be related to the declension in the quality of the inspiration of today's literary output. The disease is lessening, it is being prevented, and it is being cured, all of which is inevitable and desirable, but we must not blind ourselves to certain effects of these changes.

Let us clarify the various manners in which gifted subjects of the disease are affected. One type, say a Keats, becomes tuberculous and within a few years dies after a continuously prolific output that rises in quality as the reaper makes his approach. Another type carries on with more or less active tuberculosis, without recovery, utilizing a direct toxinic stimulus throughout a lengthy career, requisitioning it like glycogen for blood sugar or alkaline reserves for the maintenance of the acid-base equilibrium of the body. Molière is a good example of this type. A third type is awakened by the infection, achieves a clinical cure, and goes forward with the "stored" memory of his stimulus and hectic habits, which he can reinvoke more or less as needed. But this false later stimulus does not usually produce results as impressive as one observes in the other types, and the subject may even lapse completely into deadly commonplaceness. In the case of H. G. Wells it has produced well sustained effects. How it fades and finally fails may be seen in certain contemporary figures whom we shall not mention.

The talent of the next generation, in an era practically free of tuberculosis, will tend to remain just talent. The lead of cleverness will not so often be transmuted into the gold of genius.

Hospital Smells

There has been a cyclic periodicity about the smell of drugs in hospitals (not to mention other things). In the Listerian era and for a long time afterward it was phenol. Forty years ago iodoform contributed its overpowering stench. Today the pervading odor seems to be that of the aromatic antiseptic solutions (thymol, eucalyptol, methyl salicylate) used as mouth washes and for other hygienic purposes.

It is a fact that the smell of a hospital is often a factor making for prejudice in many people. Even a fragrant odor does not necessarily invite good will—we now associate the aromatic antiseptic solutions, for instance, with somewhat unpleasant personal rituals.

A hospital should be odorless. The hospital of the future will be. In fact, the hospital of the future will be better than odorless. It will not be in Class A unless it is air-conditioned.

Hospitals should be like what Dr. Samuel Johnson said about women. When someone objected to his condemnation of perfumery, and asked, "Would you not have a woman smell sweet?" he roared in reply, "Sir, I would not have her smell at all!"

Reducing Neonatal Mortality

Three things, to our mind, stand out as promising aids in the conservation of the lives of the newborn. The first is Wilder's contribution from the Mayo Clinic, which consists in reinforcing the baby's sugar store, depleted in the Marathon called "getting born"—and this not for the babies of diabetic mothers alone, but for all infants. The second is the Fowler position, so to speak, which tends to prevent pyloric spasm and hypertrophy. The third is the oiling of the baby and the omission of the brutal assault known as the baby's bath —omitting it practically up to the time that the cord falls off.

Narrow Pedagogy In Medical Schools

At the annual Congress on Medical Education of the American Medical Association, wise words were spoken as to the need, on the part of the medical student, to study social and economic issues as well as the human body. Medical education was held to be too narrow and personal success and maximum usefulness thereby hampered. It is the fault of the student's teachers that physicians fail to get a sound social education along with their professional education. They may miss a great group of facts and forces understanding of which is essential to completion of the individual "as a practitioner of a distinctive profession."

The real trouble is, one speaker thought, that instruction in the history of the development of medicine, in legislation affecting the physician directly, in legislation affecting practice, in organization and ethics, in opportunities and conditions in various fields of practice, and in new forms of medical practice, is pretty sure to be "ineffective, dull and somewhat divorced from reality."

It is our belief, just the same, that the student is finding out more than we fancy, on his own hook. We think of him as a good deal like the boy who, when his father told him that he had reached an age necessitating a candid discussion of sex, said to his parent: "Well, dad, what would you like to know about it?"

Travel and the Public Health

If by June railroad rates are to be practically cut in half travel may be expected to reach an unprecedented "high." The population shifts will be vast and rapid. Along with this speedy diffusion of people will go increased public health risks. Chicago's Century of Progress afforded just a dreadful glimpse of what can happen when hordes of people mill about in new environments. What will things be like when the entire populace of the Republic, already keen to "go places," will be further tempted by extremely low travel costs? The public health authorities are well aware of the possibilities in this situation, are preparing for it, and will do their best to control it. If the medical profession everywhere cooperates alertly with the public health authorities better mental and physical health should accrue to the traveling public rather than the intestinal and other infections upon which our attention is now focussed. There should be a campaign, beginning this summer, if not before, with some such slogan as "Wash the hands without fail before eating or preparing food if you wish yourself and others to remain well and alive; it's half the battle of humanity against illness and death." Tell the traveling public that he who so washes his hands and walks unscathed through pestilent cities is like unto the hero of the saga who bore a charmed life: thrice-armed against dragons actual and dragons metaphorical. Perhaps that was the secret of the heroes of the ancient world whose immunity seemed so marvelous to their fellows. They who were supposed to be specially protected by Zeus and Hygeia and Esculapius were merely folk who washed their hands and thereby gained the aristocratic distinction of not dying prematurely, as was the rule in their precarious time. What sometimes even today looks like courage on the part of the doctor facing infection and pestilence is just knowledge of how to protect himself.

MISCELLANY

The Hospitalization of the Chronically Ill

1. It is assumed that society has the same responsibility for the chronically ill as it has for the acutely ill.

2. Every responsible public health official must be made to see that chronic disease with its resultant disability, suffering, and economic loss, constitutes a great uncultivated field for profitable public health work. Public health education is making remarkable progress in the special field of cancer. Why not extend the program of public health education to other chronic diseases?

3. In a strictly scientific spirit we should try to find out exactly how social and economic factors contribute to chronic illness. We should ascertain whether the crippling effects of chronic disease can be lessened by reasonable and feasible improvements in the conditions of living and working.

4. We must cease throwing every imaginable type of chronically ill patient into the hopper of an unclassified hospital service. This is the very essence of the problem of proper hospitalization of the chronically ill. Confusion, frustration and despair are the inevitable results of so insensate a policy. Intelligent classification is indispensable to close and useful study. Without such study we cannot hope to improve our methods of treatment.

5. Different forms of chronic disease require specialized measures of prevention and treatment.

6. A spirit of inquiry must be fostered and money must be found for the support of intelligently planned research projects.

7. To lavish all our resources on acute illness, while neglecting the chronically ill, is neither wise nor just. Many communities inconsistently spend millions for the construction and maintenance of hospitals for the acutely ill, while begrudging even small sums for the care of chronic patients. Neglected, dilapidated, hopeless in outlook, the chronic hospital often arouses a feeling of repugnance if not

of downright disgust. We must change all this by making the chronic hospital a centre for medical research in its special and transcendently important field.

8. Homes for incurables should restrict their activities to the nursing and attendant care of suitable cases. No one should be admitted to such a home without an adequate qualifying diagnosis. A mistaken diagnosis may be equivalent to signing the patient's death warrant.

9. Every home for the aged should have a medical service sufficient for its daily needs and should be closely affiliated with a well-organized chronic hospital equipped for all emergencies.

10. Chronic disease affects children as well as adults, and it is necessary to differentiate the physical, mental and social factors which affect childhood, youth, middle age and old age.

11. Since mental factors play an important rôle in the causation of chronic disease, an effort should be made to integrate mental health services with medical services in the study and treatment of chronic diseases.

12. From improved methods of treatment we may safely anticipate a shorter average length of hospital stay, a diminution of suffering, and a lessening of physical incapacity. But there is another way in which the hospitalization of the chronically ill can be reduced, namely, by increasing the facilities for home medical care. For many chronic invalids, care at home is the happiest solution for the patient and his family.

—S. S. Goldwater, M.D.

Commissioner, Department of Hospitals, City of New York.

ASSOCIATED PHYSICIANS OF LONG ISLAND

June Outing, Tuesday, June 9th, at the Crescent Athletic Club, Huntington, L. I.

June will be a month of outings and one of the best ones will be that of the Associated Physicians of Long Island. To repay members for attending, there are two treats in store. First, the Crescent Country Club in Huntington is one of the finest spots in the East for outdoor sports and all the facilities will be open to our members Tuesday, June 9th. Second, the scientifically inclined members will be afforded the opportunity to inspect the new Huntington Hospital and to hear what its staff are doing, for they will present a program styled along the lines of the popular scientific afternoon at Southside Hospital, Bay Shore. That program went over big last June and Huntington Hospital's staff will be ready with something just as good and therefore members just can't lose by attending. The sportive coterie will keep busy on the tennis courts and golf course while the rocking chair brigade spin yarns and the scholars better themselves in the Huntington Hospital scientific session.

The time schedule will be essentially as follows:

2:00 P.M. Assembly at Crescent Country Club in Huntington, L. I.
3:00 P.M. Inspection of the Hospital.
3:30 P.M. Scientific program in the Huntington Hospital.
5:30 P.M. Business meeting in the Crescent Country Club.
6:30 P.M. Dinner.

This meeting will be in Suffolk County and it is the hope of the officers that a large number will attend to support Dr. Wilbur Travis, the President, whose home is in Northport, Suffolk County. The date has been purposefully set early in June—the ninth—to get this outing on your calendar before the summer's deluge of outings.

The officers feel that they have picked the best Country Club on the island and have planned a scientific program in which the members should be interested. Attendance should be accepted as an obligation but members may look with enthusiasm to June 9th and the fun and benefits to be derived. Dr. Travis will not let you be disappointed.

Correspondence

Norse Medicine and Surgery in the Middle Ages, including a Report of a Cholecystotomy

To the Editor of the MEDICAL TIMES:

The subjoined personal communication from Dr. A. N. Rygg, president of the Norwegian Hospital, Brooklyn, I send to you because of its peculiar medical interest. It tells something of the medicine of the Middle Ages in northern Europe, which is an obscure subject; it tells of the life of an Icelandic chieftian who practiced as a physician in the late twelfth and early thirteenth centuries; and it describes a successful operation for the removal of a gallstone which was performed by this Icelander. Following is Dr. Rygg's communication.

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It happened in 1043 on Lyrskog Heath (now Lürschau in Schleswig) that Magnus the Good, King of Norway and Denmark, who in a bloody fight had defeated the heathenish Slavs, did not have trained attendants enough to dress the wounds of his warriors after the battle. He then selected some men in the army and stroked their palms in order to feel if they had healing hands and found twelve men who he thought were soft-handed enough to dress wounds. None of them had done so before, but after this day they all became good doctors. One of them was the Icelander Atle, and this skill which now had come into his family would not leave it thereafter. It was also inherited by the chieftain Ravn Sveinbjörnsson, a great-grandson of Atle.

In his younger days Ravn traveled extensively and visited the Orkneys, Norway, Canterbury, St. Giles' grave in France, St. Jacob's grave in Compostella, Spain, and Rome, where he prayed to apostles and saints and asked for their protection.

When he came home to Iceland he took over the family estate, settled down at Eyre and built many large houses on the farm. There he showed the greatest hospitality to all who sought him whether they wanted to stay for a long or short time. Over Ravn's healing skill there was such a great power from God that many who had little hope of recovery, when they came to him, left him in full health. He neglected both sleep and food, when sick people came to him; he first had to do the best he could with them. He never accepted any compensation for his healing and, if the sick were poor, he let them stay at Eyre until they were cured, and assumed all their expenses.

Ravn could do more than heal wounded men, he could cure diseases which people did not understand. On a man who was swollen over the whole of his body and who sought Ravn in a reception house he had on the highway, he burnt in the sign of the cross, on the breast, on the head and between the hips, and after half a month the man was cured.

Another time a woman came who was sick in her mind and wept much; but when Ravn had taken blood from a vein in her hand, the vein he called the "weeping vein," she recovered.

He cured also a man who had gallstones. First, with the hand, he moved the stone forward in the man's body, then he asked everybody in the room to sing pater noster,

and while they sang he cut the stone out with a knife. Such things, says the writer of the saga, must not be considered peculiar, as God had given Ravn His gracious mercy.

These things happened about the year 1200.

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Dr. Rygg gives as his authority for the above statement, the *Saga of Ravn Sveinbjörnsson.*

In the *Heimskringla, Olaf Tryggveson's Saga,* written by Snorri Sturleson, may be found an account of a scientific experiment which a viking prisoner, about to be decapitated, volunteered to try on himself after his head was off. The prisoner said: "I will stick this fishbone, which I hold in my hand, into the earth, if it be that I know anything after my head is cut off." His head was cut off, but the fish bone fell from his hand. This happened in Norway A.D. 994.

EDWARD E. CORNWALL, M.D.

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[Editor's Note—Nothnagel was unable to trace gallbladder surgery farther back than 1767, when some important work was done in France, but according to Lord Moynihan, the first operation for the removal of a gallstone from a living patient was performed by Fabricius Hildanus in 1618. So Dr. Rygg's Norse citation is most important in extending the historic record, in showing the cultural stature and genius of the surgeon of the saga, and in revealing the Norse community's enlightened cooperation with a scientific pioneer. That part of the recital which tells of the singing of the Lord's Prayer recalls the chanting of the Psalms during Ephraim McDowell's first ovariotomy at Danville, Kentucky, in 1809. Both of these forward steps were taken in a spirit and atmosphere which seem singularly appropriate, dramatic and epic in the premises—science and art and religion enlisted in a common aim, an aim always certain of success when so motivated.]

News and Notes

The American Public Health Association Announces Its Sixty-Fifth Annual Meeting

The oldest and most powerful association of public health workers in the United States, the American Public Health Association, will convene in New Orleans, La., October 20-23, for its 65th Annual Meeting.

Drawn from every State in the Union, from Canada, Cuba and Mexico, officials from the various branches of Federal, State, City and County health departments and other agencies active in disease prevention and health promotion will gather in New Orleans. For four days, the attention of the health and medical worlds will be focussed upon the deliberations and recommendations of this band of health specialists.

The Annual Meeting of the American Public Health Association is the place where the report on the state of the nation in matters of public and personal health is presented.

Dr. Thomas A. Parran, Jr., Surgeon General of the United States Public Health Service, is President-Elect of the Association and will be honored at New Orleans.

National headquarters of the American Public Health Association are at 50 West 50th Street, New York, N. Y., and Dr. Reginald M. Atwater is Executive Secretary.

International Cardiological Meeting Royat (Auvergne) Assembly of Physiologists, Pathologists and Therapeutists May 31—June 1, 1936

Various professional groups of Royat have decided to organize International Cardiological Meetings to be held in Royat at regular intervals.

One question will be discussed at each meeting from the physiological, pathological and therapeutic point of view.

This question, chosen from among the problems of present day science, will be discussed by lecturers whose personal research, competence and recognized authority are sure guarantees of the value of these sessions.

The reports will be distributed in the form of brochures, each of which will present a summary of latest developments in the question studied and, in all, will constitute a cardio-vascular library of great value to the practitioner.

The first meeting will be held in Royat May 31-June 1. The question to be discussed will be: Vascular Spasm.

Professor Vaquez will preside.

Reports will be delivered by:

Professors C. Heymans (Ghent) and Lucien Brouha (Liege): Vascular tonus.

Professor Riser (Toulouse): Vascular spasm and the brain.

Professors Leriche and Fontaine (Strasbourg): Vascular spasm and the limbs.

Professors Maranon and Duque (Madrid): Vascular spasm in relation to endocrinology.

Professor Loeper (Paris): Treatment of vascular spasm.

Bureau of Medical Relations with Foreign Countries At the Faculty of Medicine—Paris, France

There is a Bureau of Medical Relations with Foreign Countries (Bureau des Relations Medicales avec l'Etranger) at the Faculty of Medicine in Paris; here students and physicians will be able to obtain any information they desire concerning post-graduate courses or hospital services.

Foreign students or physicians should communicate with the Bureau of Medical Relations at the Faculty of Medicine in Paris and inform them of their arrival; a cordial welcome will be extended to them.

International Congress on Hepatic Insufficiency

The International Congress on Hepatic Insufficiency will take place at Vichy from the 16th to the 18th of September, 1937, under the Chairmanship of Professor Maurice Loeper, Member of the Academy of Medicine.

General Secretary: Dr. J. Aimard.

The proceedings of the Congress will be divided into two sections:

Medicine and Biology Section—

Presided over by Professor Noël Fiessinger, Profesor of Experimental and Comparative Pathology at the Faculty of Paris.

Therapy Section—

Presided over by Professor Mauriac, Dean of the Faculty of Bordeaux.

The Congress on Hepatic Insufficiency will be preceded by the International Congress on Gastro-Enterology, which will be held in Paris on the 13th, 14th and 15th September, 1937.

Committee for the Study of Suicide

An organization to be known as the *Committee for the Study of Suicide, Inc.,* was incorporated last December under the laws of the State of New York and began its activities early in January. The Committee may in time increase its present membership of ten to a total number of twenty. The Board of Directors and the officers of the new corporation are: Dr. Gerald R. Jamieson, President; Mr. Marshall Field, Vice-President; Dr. Henry Alsop Riley, Treasurer; Dr. Gregory Zilboorg, Secretary and Director of Research; Miss Elisabeth G. Brockett, Dr. Franklin G. Ebaugh, Dr. Herman Nunberg, Dr. Dudley D. Shoenfeld, and Dr. Bettina Warburg.

The Committee plans to undertake a comprehensive study of suicide as a social and psychological phenomenon.

Dr. Henry E. Sigerist, Professor of the History of Medicine at Johns Hopkins University, and Dr. Edward Sapir, Professor of Anthropology at Yale University, are consultant members of the Committee. They will advise and guide in that part of the work which touches their respective fields.

The Executive Offices of the Committee are located at Room 1404, the Medical Arts Center, 57 West 57th Street, New York City, and will be in charge of an executive assistant.

MEDICAL BOOK NEWS

Edited by TASKER HOWARD, M.D.

All books for review and communications concerning Book News should be addressed to the Editor of this department, 1313 Bedford Avenue, Brooklyn, New York.

May, 1936

CLASSICAL PARAGRAPHS

I have long been satisfied from observation, that besides the general colds now termed *influenzas* (which may possibly spread by contagion as well as by a particular quality of the air), people often catch cold from one another when shut up together in close rooms, coaches, etc., and when sitting near and conversing, so as to breathe in each other's transpiration; the disorder being in a certain state.

* * *

I imagine it will be found pretty generally true that the same convexity of glass through which a man sees clearest and best at the distance proper for reading is not the best for greater distances. I therefore had formerly two pairs of spectacles which I shifted occasionally, as in travelling I sometimes read, and often wanted to regard the prospects. Finding this change troublesome, and not always sufficiently ready, I had the glasses cut and half of each kind associated in the same circle. By this means as I wear my spectacles constantly, I have only to move my eyes up or down, as I want to see distinctly far or near, the proper glass being always ready.

B. Franklin: The Writings of Benjamin Franklin, Smyth, A. H., The Macmillan Company, 1905. Vol. I, pp. 123, 125.

A New Edition of Hertzler's Thyroid

DISEASES OF THE THYROID GLAND. By Arthur E. Hertzler, M. D. Third edition. St. Louis, The C. V. Mosby Company, [c. 1935]. 348 pages, illustrated. 8vo. Cloth, $7.50.

As stated by the author in the preface to this third edition, this new edition is an expression of his own experiences and impressions in dealing with affections of the thyroid gland. Many of the author's observations and views are based on late follow-up data on many old patients, a fact which has emphasized to the author that goitre is a continuous process which may extend over several decades. He has emphasized the importance of performing adequate resections of the thyroid gland when indicated culminating in complete thyroidectomies in certain selected cases. He states that myxoedema has not resulted particularly in adults. Thyroid surgeons generally would hesitate to recommend such radical surgery. On the value of the basal metabolic reading, he states that the latter is merely a measure of tissue destruction and bears no evidence of the other phases of thyroid disease. Consequently, being only one and a minor factor when thyroid disease as a whole is considered, the acceptance of this test in estimating the importance of thyroid disease is responsible for many of the misconceptions and for misdirected treatment in patients with goitre or supposed to have goitre. With this, thyroid surgeons are in hearty agreement. The importance of goitre in relation to disease of the heart is stressed.

The book is divided into seventeen chapters and covers well and in condensed form the general field of goitre. The first chapter deals with general considerations of the importance of goitre. The classification of goitre, according to the author, is given. This is based upon physiologic and pathologic considerations and thus rests upon a firmer basis than were clinical manifestations the main basis of classification. After a consideration of the normal morphology of the thyroid gland, the various types of pathological changes are considered. Abundant illustrations of patients and pathological material, gross and microscopic, are provided in these sections.

Finally there are three chapters which would be helpful to the surgeon engaged in thyroid operations, namely the hospital management of goitre patients, the anatomical considerations in thyroid surgery and the technique of operations on the thyroid gland. Many of the subjects are necessarily dealt with very briefly but what is given represents the ideas and results of wide personal experiences and has therefore very definite value. Very little has been included from the work of others and there is no bibliography. Accordingly, as stated before, the book is an expression of the author's own experiences. The final chapter on the technique of operations is clear, well illustrated and contains many points helpful to the thyroid surgeon. The technique of local anesthesia is described and is heartily recommended by the author.

The book is recommended as representing the crystalization of a wide experience in surgery of the thyroid gland and is thus of great value to the student of thyroid surgery and has several chapters of interest also to the internist.

EMIL GOETSCH.

The Gall Bladder

THE MEDICAL TREATMENT OF GALL BLADDER DISEASE. By Martin E. Rehfuss, M. D. and Guy M. Nelson, M. D. Philadelphia, W. B. Saunders Company, [c. 1935]. 465 pages, illustrated. 8vo. Cloth, $5.50.

This very excellent little book covers its subject in a very thorough manner, its material is well-arranged and its illustrations well-chosen. The chapter on the anatomy and physiology of the gall bladder gives us a clear con-

ception of the latest researches in this field. The chapters on history and examination describe in detail the observations and recommendations of a keen clinician. Much space is given to duodenal intubation, the Roentgenologic section is of outstanding value and beautifully illustrated, and differential diagnosis is entertainingly presented. Three-fourths of the book is devoted to discussions of treatment. In addition to the general principles involved, the authors discuss separately the treatment of various complications and the control of individual symptoms. Diet tables, with careful explanations of the dietary indications, are a valuable feature—and at the end of the book the description of routine procedures, the suggestions for instructions to patients and the methods of charting findings are of much practical value to practitioner and student alike. This book belongs in the library of every physician who wants to keep up to date in his gall bladder work.

A. F. R. ANDRESEN.

A Study of the Fasciae

FASCIAE OF THE HUMAN BODY AND THEIR RELATIONS TO THE ORGANS THEY ENVELOP. By Edward Singer, M. D. Baltimore, Williams & Wilkins Company, [c. 1935]. 105 pages, illustrated. 4to. Cloth, $3.00.

In this well condensed work is treated: First, The general description of fasciae, Second, The fasciae of the trunk, Third, The fasciae of the extremities. Acquisition of information is facilitated by the brevity of 43 pages of textual description, aided by 24 illustrations giving three dimensional effects. Practical help is rendered by setting down together synonymous terms applied to the various fasciae. Fasciae are followed in their transitions into blends. We find clarified also, the way in which the fascia of one area becomes coextensive with the fascia of adjacent areas. This book distinctly aids one to a clear visualized concept of the relations of fasciae in the human body.

CARLETON CAMPBELL.

More About Sex Hygiene

SEX BEHAVIOR IN MARRIAGE. By Charles A. Clinton, M.D. New York, Pioneer Publications, Inc., [c. 1935]. 159 pages, illustrated. 12mo. Cloth, $2.00.

This small volume of some 150 pages is packed full of sane and useful information. The kind of information that is most beneficial to young people but which is seldom given them in time to be of material benefit. Many unhappy marriages could be prevented if sex behavior before and during marriage could be "gotten over" to our young people during their formative years.

The arrangement of the subject matter is consecutive and logical. The simple anatomy and primary physiology of the male and female organs is entirely in order. More information would only complicate the picture; less would not serve the purpose. The most unsophisticated must know something of the structures involved and the primary physiology and psychology of the sexual act, otherwise very little enlightenment could be expected from any text.

The specific chapters dealing with choosing of the proper mate; the wedding night; attitudes during cohabitation; impotence and frigidity and birth control are given in an understandable, very informative way, yet devoid of that sordid, purely sex-excitement appeal that many such books possess.

Written by a physician of fine character and mature spiritual vision, this book can be read by young and old with the assurance that what is said is based on fact and not on purely "sex-appeal."

HARVEY B. MATTHEWS.

Something About Food Fads

DIET AND DIE. By Carl Malmberg. New York, Hillman-Curl, Inc., [c. 1935]. 149 pages. 12mo. Cloth, $1.50.

That crazy diets have for some time choked the press and the radio has been quite evident. It almost seemed inevitable that this supersaturation should lead to insurrection. Here, too, as in the case of "100,000,000 Guinea Pigs," it has been a layman who has undertaken the job of warning the public about fake diets. And so, whatever the merits of the author's arguments, the fact remains that his motives cannot be disputed. He has, moreover, presented a style and approach not much different from that employed by a qualified doctor. And, whereas the physician-author might be timid in exposing the mistakes or iniquities of his colleagues, Malmberg has dealt with all whose claims have appeared questionable whether it be Kellogg or Copeland or Hay or Sunkist.

The physician-reader is left with the impression that he has been either too complacent or backward by letting others tell the public things that should come from him. And, finally, however we dislike it, it behooves us to keep pace with these fads by knowing more about them than their titles.

EMANUEL KRIMSKY.

A Great Obstetrician

JOHN WHITRIDGE WILLIAMS. Academic Aspects and Bibliography. By J. Morris Slemons. Baltimore, Johns Hopkins Press. [c. 1935]. 109 pages. 12 mo. Paper, $1.50.

No obstetrician, no teacher, no one who loves the perfect tribute should fail to read this address. Its lovely prose contains much information. His intimate friendship with Abraham Flexner and the principle of full time for teachers of clinical medicine, his research, Caesarean section, the contracted outlet and the posterior sagittal diameter, and many other subjects are lightly touched. Best of all is the complete exposition of Williams' arguments for the union of obstetrics and gynecology, which even he was unable to achieve at Johns Hopkins.

CHARLES A. GORDON.

Of Johnny and Jimmy

GROWTH A STUDY OF JOHNNY AND JIMMY. By Myrtle B. McGraw, Ph.D. New York, D. Appleton-Century Company, [c. 1935]. 319 pages, illustrated. 8vo. Cloth, $3.50.

The purpose of this book is to present a study of development as manifested in the growth of special behavior-patterns of the human infant and the influence of exercises or the use of an activity on their development. For the study a set of twins named Johnny and Jimmy were especially used. One was stimulated into a variety of activities while the other was restricted. In this way phyologenetic activities and the effect of exercise on them, ontogenetic behavior, and other points were studied.

The work is both comprehensive and careful. It is a genuine contribution to the subject of child behavior.

STANLEY S. LAMM.

Medical Technique

THE SPECIAL PROCEDURES IN DIAGNOSIS AND TREATMENT. An Outline for Their Understanding and Performance. By Don Carlos Hines, M. D. Stanford University, Stanford University Press, [c. 1935]. 66 pages. 12mo. Paper, $1.00.

This booklet of sixty-six pages represents an effort of the author to present in concise outline form a description of procedures in diagnosis and treatment as carried out in the wards of the Stanford University hospitals. Multiplicity of methods as well as theoretical argumentation are avoided. This small volume will serve very well as a hand-book for the newly initiated interne.

GEORGE E. ANDERSON.

Dr. Hibbs and the Orthopedic Hospital

RUSSELL A. HIBBS, Pioneer in Orthopedic Surgery, 1869-1932. By George M. Goodwin. New York, Columbia University Press, [c. 1935]. 136 pages, illustrated 8vo. Cloth, $2.00.

This is not only a biography of one of the greatest orthopedic surgeons but also a history of the growth and organization of the New York Orthopedic Hospital and Dispensary as influenced by Dr. Hibbs.

Dr. Hibbs became attached to the institution at an early age with no special leaning toward orthopedics, but he was soon greatly interested in the work and because of his industry, hard work and strong character, he developed one of the best orthopedic institutions in the world.

The growth of the institution was due to his genius for organization. He early recognized that to develop a good service, the entire medical staff must devote considerable time to their work in the hospital, and this could not be possible unless they were free from economic worry. He, therefore, affected plans whereby each member of the staff received an adequate salary for the charity work done.

His contributions to orthopedic surgery were many and

are well brought out by Mr. Goodwin. This volume should be in the library of every orthopedic surgeon.

J. B. L'EPISCOPO.

An Important Chapter in Bacteriology

THE BACTERIOLOGY OF TYPHOID, SALMONELLA, AND DYSENTERY INFECTIONS AND CARRIER STATES. By Leon C. Havens, M.D. Edited by Kenneth F. Maxey, M.D. New York, The Commonwealth Fund, [c. 1935]. 158 pages. 8vo. Cloth, $1.75.

This is an interesting and completely useful survey of the field indicated by the title. It presents a neatly interlocked account of the scientific and technical bacteriologic data of these groups together with the related parts of immunology and epidemiology. The broad public health experience of the author authoritatively directs attention to needful research and reiterates the necessity of rational cooperation between clinicians and laboratory. The book will be ubiquitous as a reference and practical guide for workers concerned with these pathogens. The wealth of specific material is not to be found altogether in any other present volume.

IRVING M. DERBY.

Roentgenology of the Osseous System

THE RADIOLOGY OF BONES AND JOINTS. By James F. Brailsford, M. D. Second edition. Baltimore, William Wood & Company, [c. 1935]. 571 pages, illustrated. 4to. Cloth, $9.00.

This is a splendid work beginning with the skeleton at birth and showing the presence of congenital abnormalities. The first part of the book takes up each anatomical segment of the osseous system giving the ossification development, congenital deformities and the diseases which may occur. The effects of trauma are well described.

The second portion of the book "GENERAL DISCUSSION ON BONE CHANGES IN SYSTEMIC AND LOCALIZED DISEASE" is most complete. The illustrations are excellent throughout, both the line drawings and the reproductions of radiographs.

The entire book is a most useful and authoritative presentation of the effects of injury and disease upon the skeletal system.

CHARLES EASTMOND.

Treatment of Children's Diseases

PEDIATRIC TREATMENT. A Manual of the Treatment of the Diseases of Infants and Children Designed as a Reference Work Especially for the General Practitioner and Physicians Entering the Field of Pediatrics. By Philip S. Potter, M. D. New York, The Macmillan Company, [c. 1935]. 578 pages. 8vo. Cloth, $5.00.

Don't put too much faith in first impressions. From the first few pages, the reviewer thought he had a book of about the vintage of Holt's first edition. The author suggests a window-board—we have no wood shed and not many convenient lumber yards, but can buy ventilators for a few cents right near by. He says for heating, a fireplace or stove is very desirable. We don't know that we ever saw a fireplace in a room suitable for a bedroom, but perhaps things do work differently in different places. When he calls the heat from a hot water bag "moist heat," he distinctly errs. The moisture is not applied to the patient.

However, as we got into the body of the book, we found that the author, in essential particulars, was up to date and offered modern treatment well expressed. The advice given is good and satisfactory and leads one toward good treatment.

The feeding is good and sensible, and if slightly conservative, it offers a good antidote to the radical, advanced kind which seems to be directed more to sidewalk gossip in which the doctor who offers a baby less than the most which any baby of the same age gets, is an old fogy, than to thinking of the baby's real advantage.

The book is recommended.

WALTER D. LUDLUM.

Smallpox Vaccination

IMMUNITÄT ALLERGIE UND INFEKTIONSKRANKHEITEN. Band V. Heft 1-6 München, Otto Gmelin, [c. 1935]. 162 pages, illustrated. 8vo. Paper.

This issue is devoted entirely to discussions on the theory and practice of vaccination for small-pox. There are contributions by different authors on the etiology of small-pox, its epidemiology, vaccination and immunity, the clinical course of vaccination and its vagaries and complications, and statistical studies dealing with small-pox in countries throughout the world. One article includes many illustrations on vaccinia in its many unusual phases and some of its complications. This symposium represents a worthy effort to present the latest work on the subject of small-pox and its prevention.

MATTHEW WALZER.

Opportunity for Research

THE NEXT HUNDRED YEARS. The Unfinished Business of Science. By C. C. Furnas. Baltimore, The Williams & Wilkins Company [c. 1936]. 434 pages. 8vo. Cloth, $3.00.

The sub-title of this work, "The Unfinished Business of Science," better explains its general trend. Mr. Furnas, who is Associate Professor of Chemical Engineering at Yale, is well qualified to launch his polemics against our relatively feeble knowledge in all branches of modern science. He says the idea for the book came to him as the result of a visit to the recent "Century of Progress" fair in Chicago. "The idea came to me that here was a book, not on what the fair was, but on what it wasn't. If this concentrated collection of illustrations of scientific accomplishment was disappointing. then the whole field of science must be disappointing because so little has really been accomplished and there is still so much to be done." Again he says: "The paths of research have brought us quite a way since man started his first fire and roasted his first pig, but still a long trail through the woods lies before us. The more one looks at the situation, the more discouraging it becomes." The author discusses in turn what science has done, and especially and at length what it has not done in the fields of biology, chemistry, physics and engineering. The tone is pessimistic; he is the prophet crying in the wilderness. To one imbued with enthusiasm regarding advances in modern science this pessimistic attitude may well throw cold water upon his ardor, but, after all, this sort of pessimism is constructive. To pursue the analogy further, the secondary effect of a cold douche is usually stimulating and a work of this type is valuable because it may act as an incentive in the search for further scientific knowledge. The book is too long, 400 pages; it seems to the reviewer that it would carry a much greater appeal if it were boiled down to half its present length, but despite the tendency to be too verbose, the author has a keen and biting humor which greatly adds to the interest in what he is saying.

F. C. EASTMAN.

Concerning Psychoanalysis

PRACTICAL ASPECTS OF PSYCHOANALYSIS. A Handbook for Prospective Patients and Their Advisors. By Lawrence S. Kubie, M. D. New York, W. W. Norton & Company, Inc., [c. 1936]. 223 pages. 8vo. Cloth, $2.00.

In his modest little book the author does not forget, among other things, to discuss at length and advise the psychoanalyst and his prospective patient as to the fees the former is to charge, the length of time it will take to psychoanalyze a patient and what it will cost to go through with such a procedure. He likens the analytic treatment to a major brain operation. One looks in vain, however, in text books on surgery for a consideration of the expenses which a patient will incur. Furthermore, has anyone ever seen a brain operation extended over 2 years?

The writer approaches his subject in no humble spirit. We read about the wise psychoanalyst, the properly trained analyst, the conscientious psychoanalyst, etc. He devotes pages to the qualifications of the analyst. One is bound to ask, for whose edification the book is written.

Discussing the question of active therapy we read: "Premature interference is not only foredoomed to failure, but also prejudices the value of all later active intervention. Therefore the wise psychoanalyst waits as patiently as a wise brain surgeon, and it is equally fatal for either to allow himself to be influenced by the impatient 'common sense of family or friends.' We may leave it to the reader to draw his own conclusions as to the aptness of these comparisons. The book contains some well written pages, and the author is at his best when he is least practical.

JOSEPH SMITH.

Oral Administration of Serum

THE INTERACTION OF THE LYMPH AND BLOOD GLANDS. By D. Montgomerie Paton, L.R.C.P. Baltimore, William Wood & Company, [c. 1935]. 146 pages. 12mo. Cloth, $2.50.

In this book the author thinks he has observed curative effects in streptococcal and staphylococcal infections from the repeated oral administration of doses of 3 to 7 cubic centimeters of low-potency diphtheria antitoxin. His attempted explanation is fanciful and unsound, displaying little knowledge of the accepted facts of serum therapy. His case reports are incomplete and uncontrolled.

K. G. JENNINGS.

More Advice to the 100,000,000 Guinea Pigs

EAT, DRINK AND BE WARY. By F. J. Schlink, New York, Covici Friede, [c. 1935]. 322 pages. 8vo. Cloth, $2.00.

An interesting portrayal in popular style of adulteration of food-stuffs for the aggrandizement of commercial interests. Imputations on the motives of the great American authorities in the field of nutrition, McCollum, Mendel, and Sherman, could not be taken too seriously by anyone who is cognizant of the far-reaching and and permanent contributions of these workers. The bad taste of the author in this respect will not detract from the ultimate purpose of the book, to make the layman more thoughtful of the type of food he eats. GEORGE E. ANDERSON.

BOOKS RECEIVED

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases, review notes will be promptly published shortly after acknowledgement of receipt has been made in this column.

THE 1935 YEAR BOOK OF OBSTETRICS AND GYNECOLOGY. Obstetrics edited by Joseph B. DeLee, M. D. & Gynecology edited by J. P. Greenhill, M. D. Chicago, The Year Book Publishers, [c. 1936]. 688 pages, illustrated. 12mo. Cloth, $2.50.

INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, etc. Edited by Louis Hamman, M. D. Volume 1, 46th Series, 1936. Philadelphia, J. B. Lippincott Company, [c. 1936]. 314 pages, illustrated. 8vo.

EXAMINATION OF THE PATIENT AND SYMPTOMATIC DIAGNOSIS. By John Watts Murray, M. D. Second edition. St. Louis, The C. V. Mosby Company, [c. 1936]. 1219 pages, illustrated. 8vo. Cloth, $10.00.

ABORTION. Spontaneous and Induced, Medical and Social Aspects. By Frederick J. Taussig, M. D. St. Louis, The C. V. Mosby Company, [c. 1936]. 536 pages, illustrated. 4to. Cloth, $7.50.

MEDICAL PAPERS. Dedicated to Henry Asbury Christian, Physician and Teacher. Baltimore, Waverly Press, Inc., [c. 1936]. 1000 pages, illustrated. 8vo. Cloth, $10.00.

A TEXTBOOK OF SURGERY BY AMERICAN AUTHORS. Edited by Frederick Christopher, M. D. Philadelphia, W. B. Saunders Company, [c. 1936]. 1608 pages, illustrated. 8 vo. Cloth, $10.00.

TWENTIETH CENTURY PSYCHIATRY. Its Contribution to Man's Knowledge of Himself. By William A. White, M. D. New York, W. W. Norton & Company, Inc., [c. 1936]. 198 pages. 8vo. Cloth, $2.00.

A TEXTBOOK OF OBSTETRICS FOR STUDENTS AND PRACTITIONERS. By Frederick C. Irving, M. D. New York, The Macmillan Company, [c. 1936]. 558 pages, illustrated. 8vo. Cloth, $6.00.

PROSTITUTION IN THE MODERN WORLD. A Survey and a Challenge. By Gladys Mary Hall, M. D. New York, Emerson Books, Inc., [c. 1936]. 200 pages. 8vo. Cloth, $2.00.

THE SINGLE, THE ENGAGED AND THE MARRIED. By Maurice Chideckel, M. D. New York, Eugenics Publishing Company, Inc., [c. 1936]. 268 pages. 8vo. Cloth, $2.50.

POST-GRADUATE SURGERY. Edited by Rodney Maingot, F.R.C.S. Volume 1. New York, D. Appleton-Century Company, Inc., [c. 1936]. 1742 pages, illustrated. 4to. Cloth, $15.00.

THE SPECIFICITY OF SEROLOGICAL REACTIONS. By Karl Landsteiner, M. D. Springfield, Charles C. Thomas, [c. 1936]. 178 pages. 8 vo. Cloth, $4.00.

THE 1935 YEAR BOOK OF GENERAL THERAPEUTICS. Edited by Bernard Fantus, M. D. Chicago, The Year Book Publishers, Inc., [c. 1936]. 460 pages, illustrated. 12mo. Cloth, $2.25.

ORGANIC CHEMISTRY. A Brief Introductory Course. By James Bryant Conant. New York, The Macmillan Company, [c. 1936]. 293 pages, illustrated. 8vo. Cloth, $2.60.

BRITISH HEALTH RESORTS SPA, SEASIDE, INLAND. Official Handbook of the British Health Resorts Association. Edited by R. Fortescue Fox, M. D. London, J. & A. Churchhill, Ltd., [c. 1936]. 287 pages, illustrated. 8 vo. Paper, 1/.

PHYSIOLOGY OF LOVE. By Paolo Mantegazza. Translated from the Italian by Herbert Alexander, edited by Victor Robinson, M. D. New York, Eugenics Publishing Co., [c. 1936]. 237 pages. 8vo. Cloth, $3.00.

BEWILDERED PATIENT. By Marian S. Newcomer, M. D. New York, Hale, Cushman & Flint, [c. 1936]. 325 pages. 8vo. Cloth, $1.75.

ATLAS OF HUMAN ANATOMY. With explanatory text by Jesse Feiring Williams, M. D. New York, Barnes & Noble, Inc., [c. 1935]. 64 pages, illustrated. 8vo. Cloth, $2.00.

WHY KEEP THEM ALIVE? By Paul De Kruif. New York, Harcourt, Brace and Company, [c. 1936]. 293 pages. 8vo. Cloth, $3.00.

THE MARRIED WOMAN. A Practical Guide to Happy Marriage. By Gladys H. Groves & Robert A. Ross, M. D. New York, Greenberg Publishers, [c. 1936]. 278 pages. 8vo. Cloth, $2.50.

THE 1935 YEAR BOOK OF NEUROLOGY, PSYCHIATRY AND ENDOCRINOLOGY. Neurology edited by Hans H. Reese, M. D.; Psychiatry edited by Harry A. Paskind, M. D.; Endocrinology edited by Elmer L. Sevringhaus, M.D. Chicago, The Year Book Publishers, [c. 1936]. 775 pages, illustrated. 12mo. Cloth, $3.00.

AMERICAN CHAMBER OF HORRORS. The Truth About Food and Drugs. By Ruth deForest Lamb. New York, Farrar & Rinehart, Inc., [c. 1936]. 418 pages, illustrated. 8vo. Cloth, $2.50.

PSYCHOLOGY OF SEX. A Manual for Students. By Havelock Ellis. New York, Emerson Books, Inc., [c. 1933]. 377 pages. 8 vo. Cloth, $3.00.

PEDIATRIC NURSING. By John Zahorsky, M. D. St. Louis, The C. V. Mosby Company, [c. 1936]. 568 pages, illustrated. 8 vo. Cloth, $3.00.

YOUR HAY FEVER. By Oren C. Durham. With an introduction by Morris Fishbein and a Chapter on Treatment by Samuel M. Feinberg, M. D. Indianapolis, the Bobbs-Merrill Company, [c. 1936]. 264 pages, illustrated. 8vo. Cloth, $2.00.

ZWEITE INTERNATIONALE KROPFKONFERENZ IN BERN. 10.-12. August 1933. Verhandlungsbericht herausgegeben von Dr. Otto Stiner. Bern, Hans Huber, [c. 1935]. 698 pages, illustrated. 8vo. Paper, Fr. 25.

BASAL METABOLISM IN HEALTH AND DISEASE. By Eugene F. DuBois, M. D. Third edition. Philadelphia, Lea & Febiger, [c. 1936]. 494 pages, illustrated. 8vo. Cloth, $5.00.

Poliomyelitis Following Vaccination Against this Disease

According to J. P. LEAKE, Washington, D. C. (*Journal A. M. A.*, Dec. 28, 1935), through those responsible for the production of poliomyelitis vaccines, through several health officers and through others, word has come to the United States Public Health Service of the development, at suggestive intervals following subcutaneous and intracutaneous injections of treated poliomyelitis virus, of twelve cases of paralytic poliomyelitis with high fatality. The facts in each case are reported. Paralytic poliomyelitis was not epidemic in any of the localities at the time of the occurrence of these cases if these cases themselves are not included in the count. The author believes that to many physicians this series of cases, following by intervals of from six to fourteen days the injection of one or the other of two different vaccines, renders undesirable the further use of poliomyelitis virus for human vaccination at present. In every case in which the sequence is known, the level of the spinal cord first affected corresponded to the extremity in which the injection was made, paralysis beginning either in the same limb or in the contralateral limb. Although any one of these cases may have been entirely unconnected with the vaccine, the implication of the series as a whole is clear.